DAV-C450

SERVICE MANUAL

Ver. 1.2 2005.07

US Model
Canadian Model
E Model
Australian Model

- DAV-C450 is composed of following model.
  As for the service manual, it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME

<table>
<tr><td colspan="3">DAV-C450</td></tr>
<tr><td rowspan="2">HCD-C450
(COMPACT DISC DECK RECEIVER SYSTEM)</td><td colspan="2">SS-WT502</td></tr>
<tr><td>SS-TS502
(FRONT, CENTER, REAR SPEAKER SYSTEM)</td><td>SS-WS502
(SUBWOOFER SPEAKER SYSTEM)</td></tr>
</table>

- Abbreviation
  CND : Canadian model.
  E12 : 220 – 240 V AC area in E model.
  E32 : 110 – 240 V AC area in E model.
  EA : Saudi Arabia model.
  MX : Mexican model.
  MY : Malaysia model.
  SP : Singapore model.

PARTS LIST

Part No.	Description	Remarks
	ACCESSORIES ************	
1-477-335-11	REMOTE COMMANDER (RM-SS450)	
⚠ 1-569-008-21	ADAPTOR, CONVERSION 2P (E32,MY,SP,EA)	
1-754-060-12	ANTENNA (FM) (EXCEPT US,CND)	
1-754-147-11	ANTENNA (FM) (F TYPE) (US,CND)	
1-754-149-11	LOOP ANT (AM)	
1-769-108-12	CORD, CONNECTION (VIDEO CORD)	
1-823-352-11	CORD (WITH CONNECTOR) (5m) (RED)	
1-823-352-21	CORD (WITH CONNECTOR) (5m) (PURPLE)	
1-823-352-31	CORD (WITH CONNECTOR) (5m) (WHITE)	
1-823-352-41	CORD (WITH CONNECTOR) (15m) (GRAY)	
1-823-352-51	CORD (WITH CONNECTOR) (15m) (BLUE)	
1-823-352-61	CORD (WITH CONNECTOR) (5m) (GREEN)	
4-228-654-01	CUSHION (FOR SS-TS502/WS502)	
4-240-154-11	MANUAL, INSTRUCTION (ENGLISH)	
4-240-154-21	MANUAL, INSTRUCTION (FRENCH) (CND,E12,EA)	
4-240-154-31	MANUAL, INSTRUCTION (SPANISH) (E32,MX)	
4-240-154-41	MANUAL, INSTRUCTION (ARABIC) (EA)	
4-240-154-51	MANUAL, INSTRUCTION (CHINESE) (MY,SP)	
4-240-873-02	COVER,BATTERY (FOR RM-SS450)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

COMPACT AV SYSTEM

9-873-995-03
2005G16-1
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Sony Corporation
Home Audio Group
Published by Sony Engineering Corporation

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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002.04	New
1.1	2002.08	Part number of cord (with connector) is corrected (SPM-02064)
1.2	2005.07	Mark of the color of the speaker codes are corrected (SPM-05045)

HCD-C450

SERVICE MANUAL

Ver 1.6 2004.08

Self Diagnosis Supported model

US Model
Canadian Model
E Model
Australian Model

HCD-C450 is the amplifier, DVD/CD and tuner section in DAV-C450.

Model Name Using Similar Mechanism	NEW
Mechanism Type	CDM53K-DVBU7
Base Unit Name	DVBU7
Optical Pick-up Name	KHM-240AAA

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 3 ohms loads, both channels driven, from 120 – 10,000 Hz; rated 80 watts per channel minimum RMS power, with no more than 10 % total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

Stereo mode	
North American and Mexican models:	
	80 W + 80 W (3 ohms at 1 kHz, THD 10 %)
Other models:	70 W + 70 W (4 ohms at 1 kHz, THD 10 %)
Surround mode	
North American and Mexican models:	
	Front: 80 W + 80 W
	Center*: 80 W
	Rear*: 80 W + 80 W (3 ohms at 1 kHz, THD 10 %)
	Subwoofer*: 100 W (3 ohms at 100 Hz, THD 10 %)
Other models:	Front: 70 W + 70 W
	Center*: 70 W
	Rear*: 70 W + 70 W (4 ohms at 1 kHz, THD 10 %)
	Subwoofer*: 100 W (3 ohms at 100 Hz, THD 10 %)

* *Depending on the sound field settings and the source, there may be no sound output.*

Inputs (Analog)	AUDIO 1, 2:
	Sensitivity: 150 mV
	Impedance: 50 kilohms
Inputs (Digital)	AUDIO 2 (optical):
	Sensitivity: –
Outputs (Analog)	AUDIO 1 (AUDIO OUT):
	Voltage: 2 V
	Impedance: 1 kilohms
	PHONES:
	Accepts low and high-impedance headphones

Super Audio CD/DVD system

Laser	Semiconductor laser
	(Super Audio CD/DVD: λ = 650 nm)
	(CD: λ = 780 nm)
	Emission duration: continuous
Signal format system	NTSC or NTSC/PAL
Frequency response (at 2 CH STEREO mode)	
	DVD (PCM): 2 Hz to 22 kHz (±1.0 dB)
	CD: 2 Hz to 20 kHz (±1.0 dB)
Signal-to-noise ratio	More than 80 dB (AUDIO 1 (AUDIO) connectors only)
Harmonic distortion	Less than 0.03 %

FM tuner section

System	PLL quartz-locked digital synthesizer system
North American model:	87.5 – 108.0 MHz (100 kHz step)
Other models:	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM wire antenna
Antenna terminals	75 ohms, unbalanced

AM tuner section

System	Tuner section:
	PLL quartz-locked digital synthesizer system
Tuning range	
North American model:	530 – 1,710 kHz (with the interval set at 10 kHz)
	531 – 1,710 kHz (with the interval set at 9 kHz)
Middle Eastern, and Philipinne models:	
	531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 – 1,602 kHz (with the interval set at 9 kHz)
	530 – 1,710 kHz (with the interval set at 10 kHz)
Antenna	Loop antenna

Video section

Outputs	VIDEO: 1 Vp-p 75 ohms
	S-VIDEO: Y: 1 Vp-p 75 ohms
	C: 0.286 Vp-p 75 ohms
	COMPONENT: Y: 1 Vp-p 75 ohms
	PB/CB, PR/CR: 0.7 Vp-p 75 ohms

General

Power requirements	
North American model:	120 V AC, 60 Hz
Australian and Asian models:	220 – 240 V AC, 50/60 Hz
Middle Eastern, and Philippine models:	
	110 – 240 V/ 220 – 240 V AC, 50/60 Hz
Power consumption	120 W (120 V AC), 120 W (230 V AC)
Dimensions (approx.)	355 × 100 × 394 mm (14 × 4 × 15 5/8 inches) (w/h/d) incl. projecting parts
Mass (approx.)	5.5 kg (12 lb 3 oz)
Operating temperature	5°C to 35°C (41°F to 95°F)
Operating humidity	5 % to 90 %

Design and specifications are subject to change without notice.

COMPACT AV SYSTEM

9-874-002-07
2004H16-1
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Audio Group
Published by Sony Engineering Corporation

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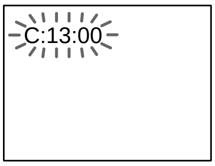
SELF-DIAGNOSIS

Self-diagnosis Function

(When letters/numbers appear in the display)

The self-diagnosis function is activated to prevent the system from malfunctioning. In this case a five-character service number (e.g., C 13 00) with a combination of a letter and digits appears on the screen and the front panel display. Refer to the following table.



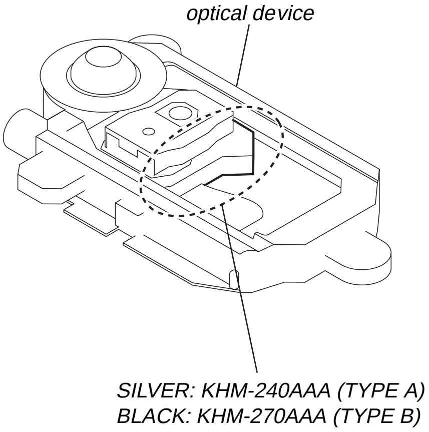
First three characters of the service number	Cause and/or Corrective Action
C 13	The disc is dirty. ➡ Clean the disc with a soft cloth.
C 31	The disc is not inserted correctly. ➡ Re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. ➡ Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

SERVICING NOTE

CHANGE OF OPTICAL PICK-UP

Optical Pick-up has been replaced from KHM-240AAA (TYPE A) to KHM-270AAA (TYPE B) from the middle of production.
In parallel with that, certain parts of DVD board have been changed.

TYPE A/B DISCRIMINATION



PARTS LIST OF EACH MODEL

DVD BOARD

REF	TYPE A	TYPE B
	KHM-240AAA	KHM-270AAA
R076	1-216-837-11 METAL CHIP 22K 5% 1/10W	No Mount
R077	1-216-815-11 METAL CHIP 330 5% 1/10W	1-216-833-11 METAL CHIP 10K 5% 1/10W
R079	1-216-801-11 METAL CHIP 22 5% 1/10W	1-216-845-11 METAL CHIP 100K 5% 1/10W

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET UND SICHEREITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLING LASERSTRÅLING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYAZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

This caution label is located inside the unit.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

CHECKING OF OPERATIONS WITH REMOTE COMMANDERS OF DIFFERENT MODELS

Some of the signal of remote commander vary between generation of player.
Between DAV-S400/S500/S800/C450/C700/C900 and DAV-S550/S880/C770/C900, remote commander signal codes of "FUNCTION", "BAND", "ST/MONO" and "MEMORY" are different.
Take notice of the above when you check the operation with remote commanders of different models.

NOTE OF REPLACING THE DVD BOARD

When replacing the DVD board, since the adjustment value is not set up correctly, "Drive Auto Adjustment" can't be performed.
In this case, initialize Memory in the following procedures.

Procedure:

1. Starting test mode. (See page 18)
2. Press the 2 key of the remote commander, and set the "DRIVE MANUAL OPERATION". (See page 24)
3. Press the 6 key of the remote commander, and set the "6. Memory Check". (See page 26)
4. Press the CLEAR key of the remote commander, and initialize Memory.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE

The AC leakage from any exposed metal part to earth Ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

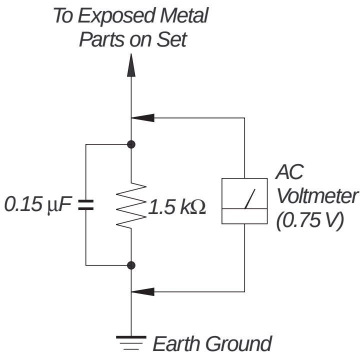


Fig. A. Using an AC voltmeter to check AC leakage.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the "S curve check" in "CD section adjustment" and check that the S curve waveform is output several times.

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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

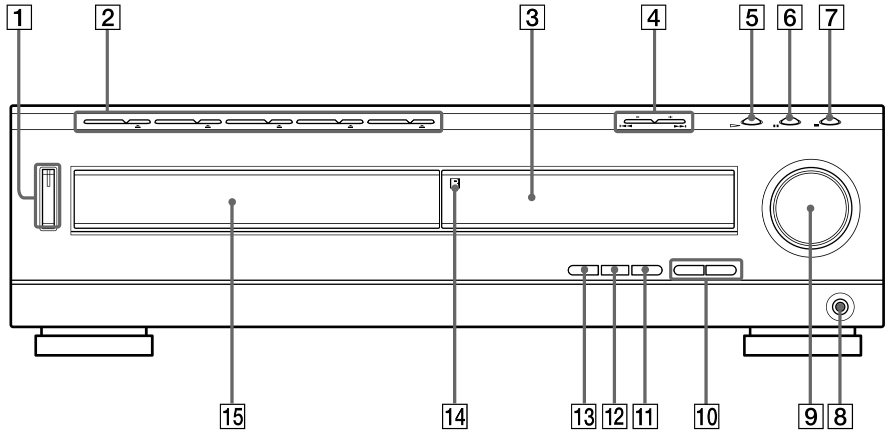
SECTION 1
GENERAL

This section is extracted from instruction manual.

Index to Parts and Controls

For more information, refer to the pages indicated in parentheses.

Front Panel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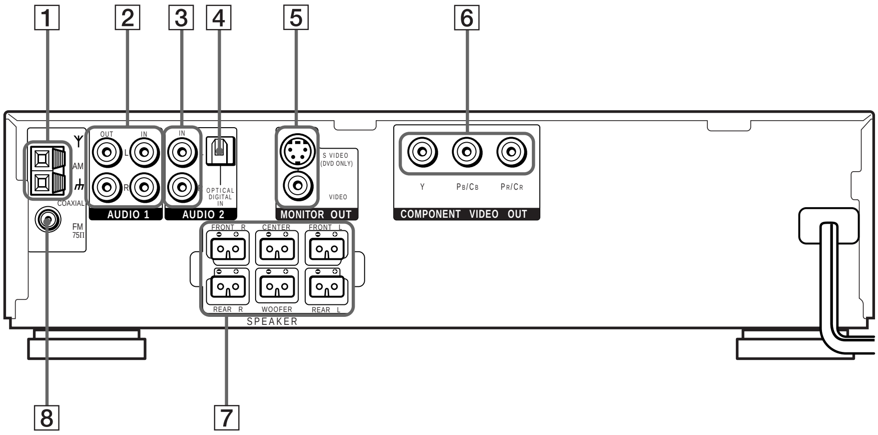
1 POWER switch/indicator (32)
2 DISC 1 (play) / ⏏ (open/close)-DISC 5 (play) / ⏏ (open/close) (32)
3 Front panel display (12)
4 ⏮/⏭ PREV/NEXT, PRESET +/– (30, 33)
5 ▷ (play) (32)
6 ❚❚ (pause) (33)
7 ■ (stop) (33)
8 PHONES jack (32)
9 VOLUME control (32)
10 SOUND FIELD +/– (49)
11 DISPLAY (49, 64)
12 BAND (30)
13 FUNCTION (63)
14 🅁 (remote sensor) (18)
15 Disc tray (32)

Rear Panel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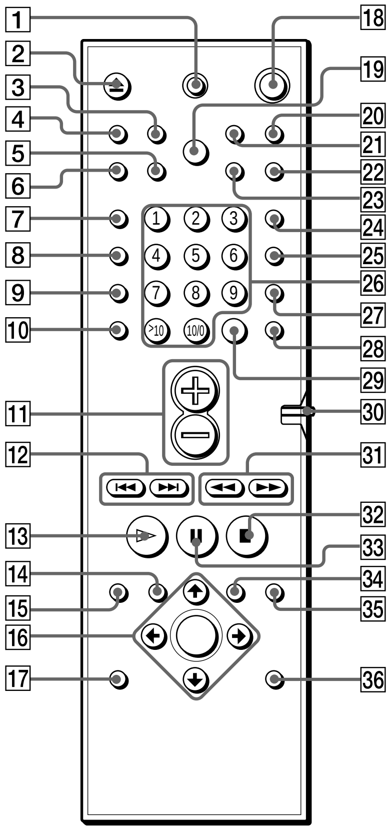
AM
COAXIAL
FM 75Ω
OUT
IN
L
R
AUDIO 1
AUDIO 2
OPTICAL DIGITAL IN
S VIDEO (DVD ONLY)
VIDEO
MONITOR OUT
Y
PB/CB
PR/CR
COMPONENT VIDEO OUT
FRONT R
CENTER
FRONT L
REAR R
WOOFER
REAR L
SPEAKER
8
7

1 AM antenna (21)
2 AUDIO 1 jacks (23)
3 AUDIO 2 jacks (23)
4 DIGITAL IN (OPTICAL) jack (24)
5 MONITOR OUT (VIDEO/S VIDEO) jacks (23)
6 COMPONENT VIDEO OUT jacks (23)
7 SPEAKER jacks (19)
8 FM 75Ω COAXIAL antenna jack (21)

Remote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36
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8
9
>10
10/0

1 TV I/⏻ (on/standby) (62)
2 ⏏ OPEN/CLOSE (32)
3 NAME (65)
4 STEREO/MONO (64)
5 MEMORY (30)
6 CLEAR (39)

7 PLAY MODE (39)
8 AUDIO (47)
9 ANGLE (54)
10 SUBTITLE (55)
11 VOL +/– (62)
12 ⏮/⏭, PREV/NEXT, TV CH +/–, PRESET +/– (30, 33)

13 ▷ PLAY/SELECT (32)
14 DVD TOP MENU (35)
15 DVD DISPLAY (15)
16 ←/↑/↓/→/ENTER (26)
17 DVD SETUP (59)
18 ⏻ (standby) (32)

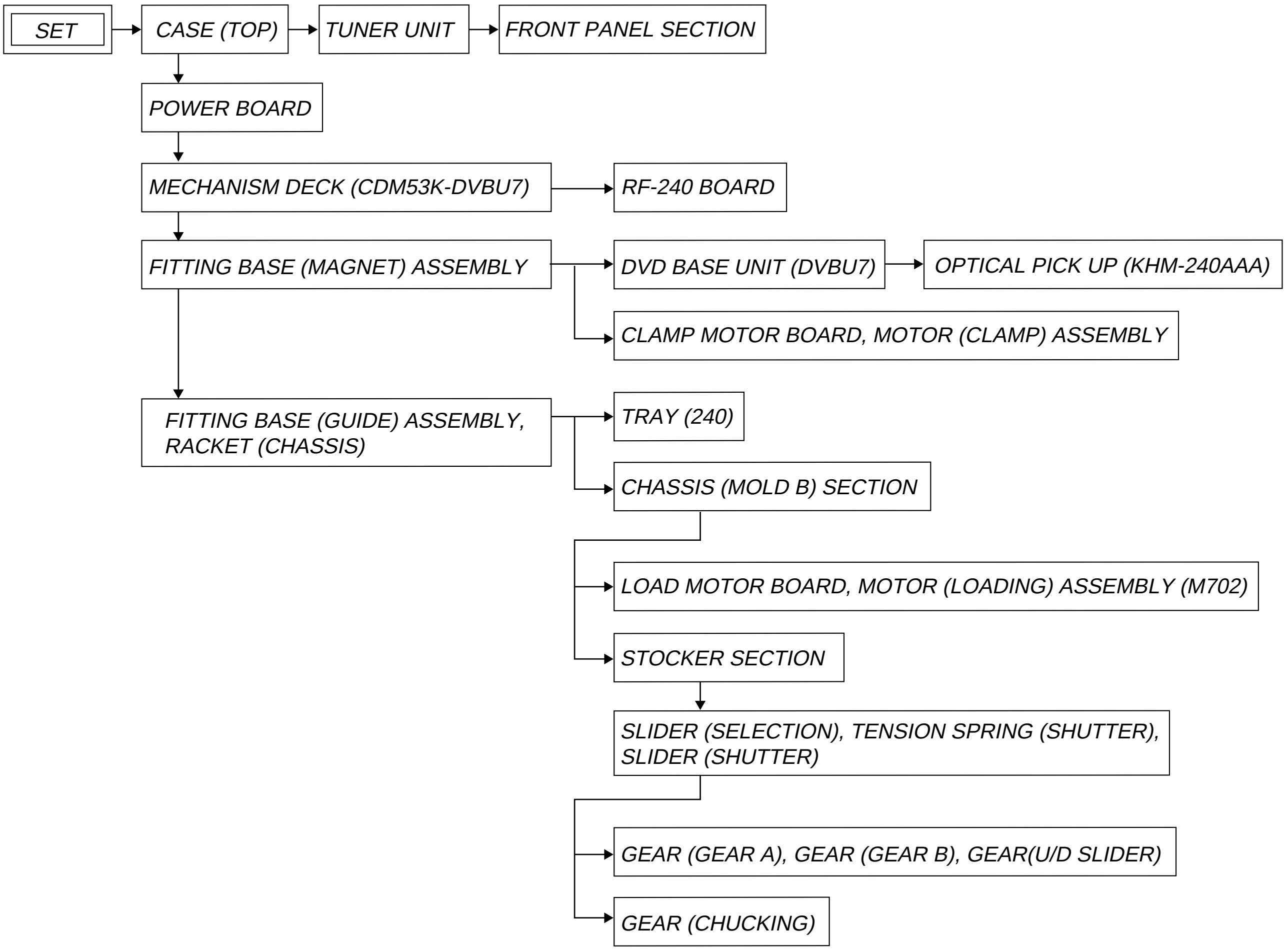
19 DISC SKIP (32)
20 TV/VIDEO (62)
21 REPEAT (39)
22 MUTING (33)
23 TIME (44)
24 FUNCTION (63)

25 BAND (30)
26 Number buttons (35)
27 SOUND FIELD (49)
28 DISPLAY (49, 64)
29 ENTER (62)
30 COMMAND MODE DVD/TV switch (62)

31 ◀◀/▶▶, ◀II/II▶ SLOW, TUNING +/– (30, 41)
32 ■ STOP (33)
33 II PAUSE (33)
34 DVD MENU (35)
35 ↶ RETURN (36)
36 AMP MENU (26)

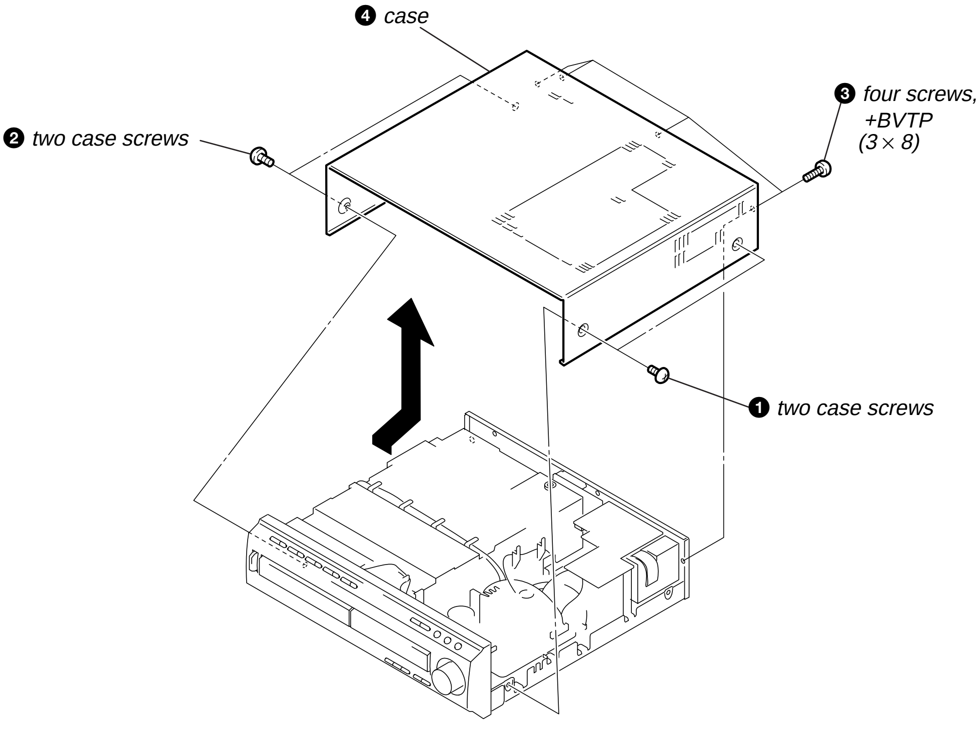
SECTION 2
DISASSEMBLY

- The equipment can be removed using the following procedure.

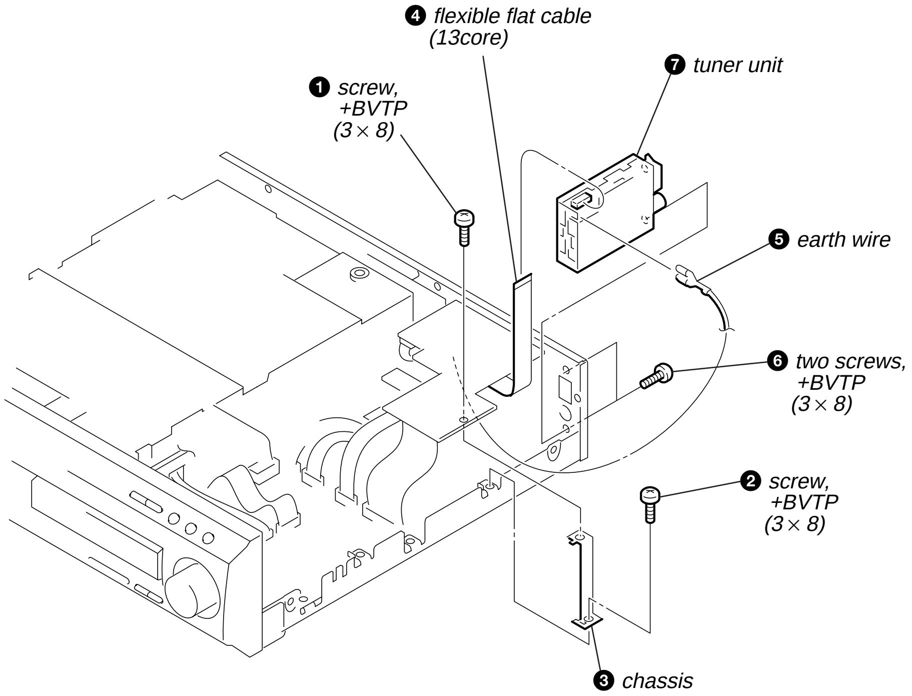

SET
CASE (TOP)
TUNER UNIT
FRONT PANEL SECTION
POWER BOARD
MECHANISM DECK (CDM53K-DVBU7)
RF-240 BOARD
FITTING BASE (MAGNET) ASSEMBLY
DVD BASE UNIT (DVBU7)
OPTICAL PICK UP (KHM-240AAA)
CLAMP MOTOR BOARD, MOTOR (CLAMP) ASSEMBLY
FITTING BASE (GUIDE) ASSEMBLY, RACKET (CHASSIS)
TRAY (240)
CHASSIS (MOLD B) SECTION
LOAD MOTOR BOARD, MOTOR (LOADING) ASSEMBLY (M702)
STOCKER SECTION
SLIDER (SELECTION), TENSION SPRING (SHUTTER), SLIDER (SHUTTER)
GEAR (GEAR A), GEAR (GEAR B), GEAR(U/D SLIDER)
GEAR (CHUCKING)

Note: Follow the disassembly procedure in the numerical order given.

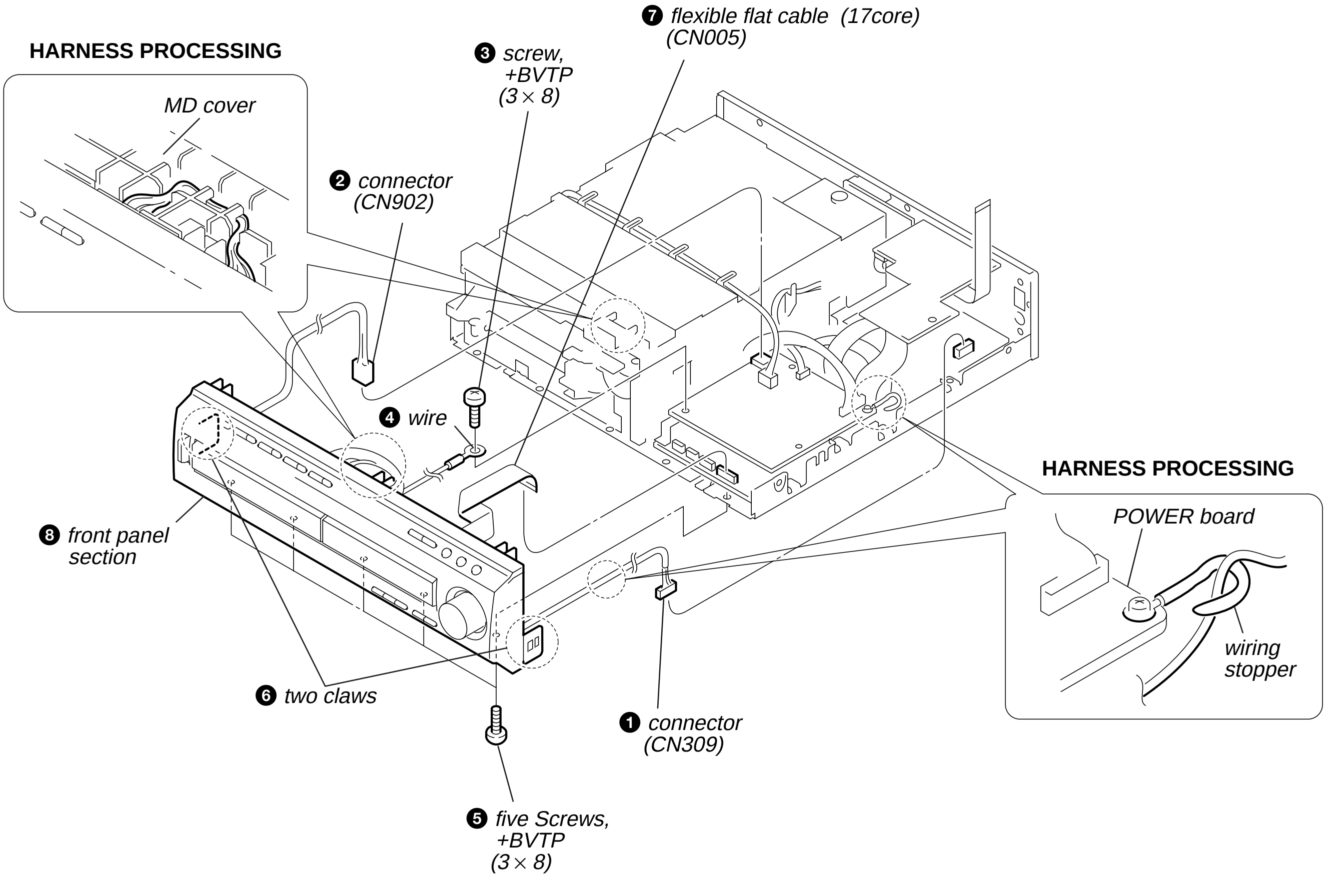
2-1. Case (Top)


❹ case
❸ four screws, +BVTP (3 × 8)
❷ two case screws
❶ two case screws

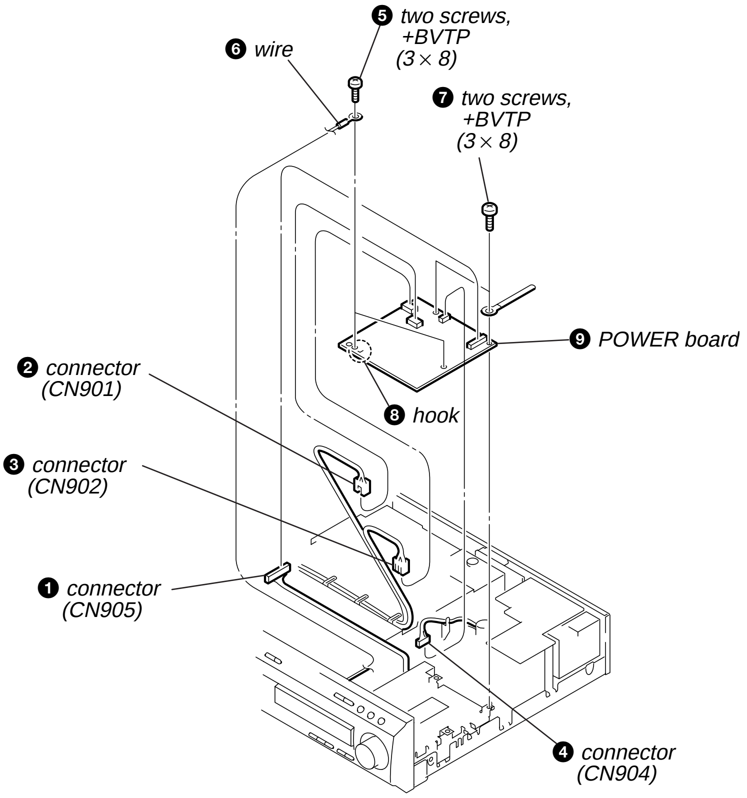
2-2. Tuner Unit


❹ flexible flat cable
(13core)
❼ tuner unit
❶ screw,
+BVTP
(3 × 8)
❺ earth wire
❻ two screws,
+BVTP
(3 × 8)
❷ screw,
+BVTP
(3 × 8)
❸ chassis

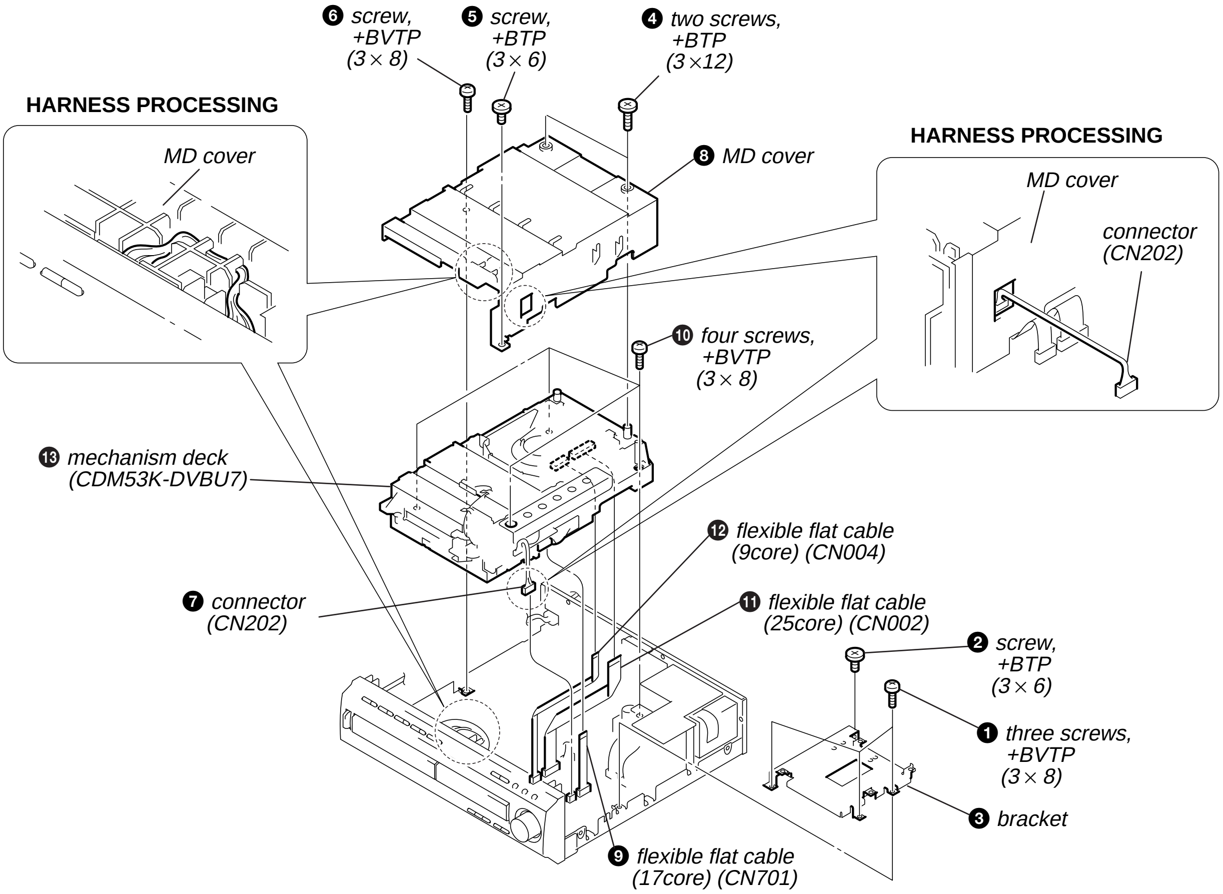
2-3. Front Panel Section


❼ flexible flat cable (17core)
(CN005)
HARNESS PROCESSING
❸ screw,
+BVTP
(3 × 8)
MD cover
❷ connector
(CN902)
❹ wire
HARNESS PROCESSING
POWER board
❽ front panel
section
wiring
stopper
❻ two claws
❶ connector
(CN309)
❺ five Screws,
+BVTP
(3 × 8)

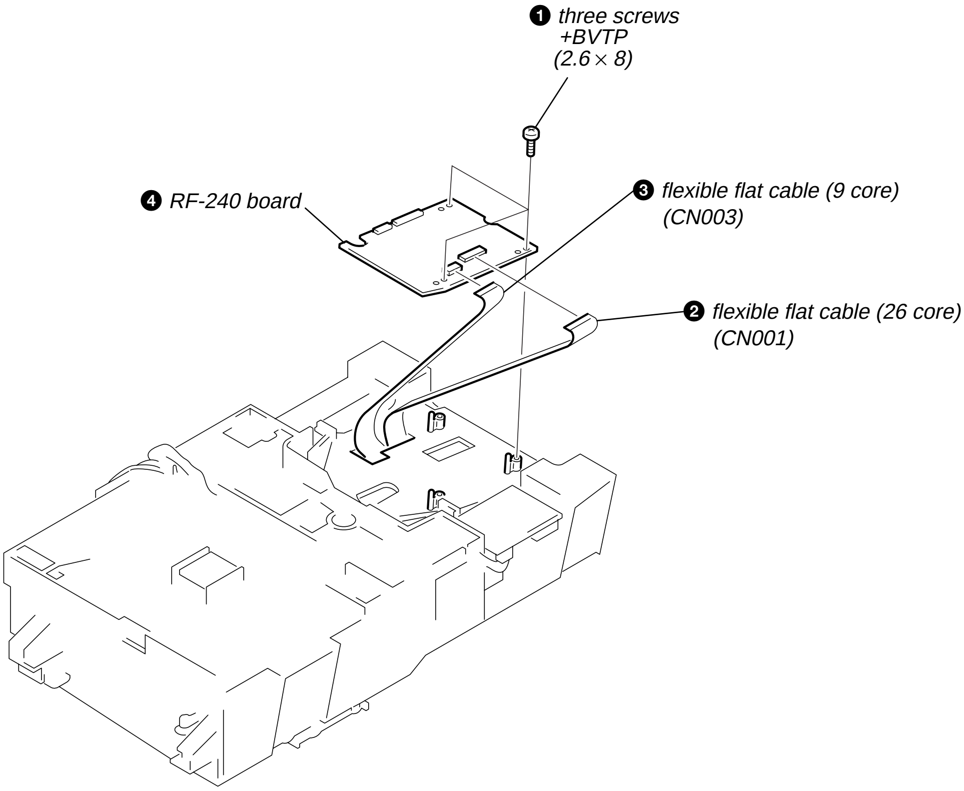
2-4. POWER Board


❺ two screws, +BVTP (3 × 8)
❻ wire
❼ two screws, +BVTP (3 × 8)
❾ POWER board
❷ connector (CN901)
❽ hook
❸ connector (CN902)
❶ connector (CN905)
❹ connector (CN904)

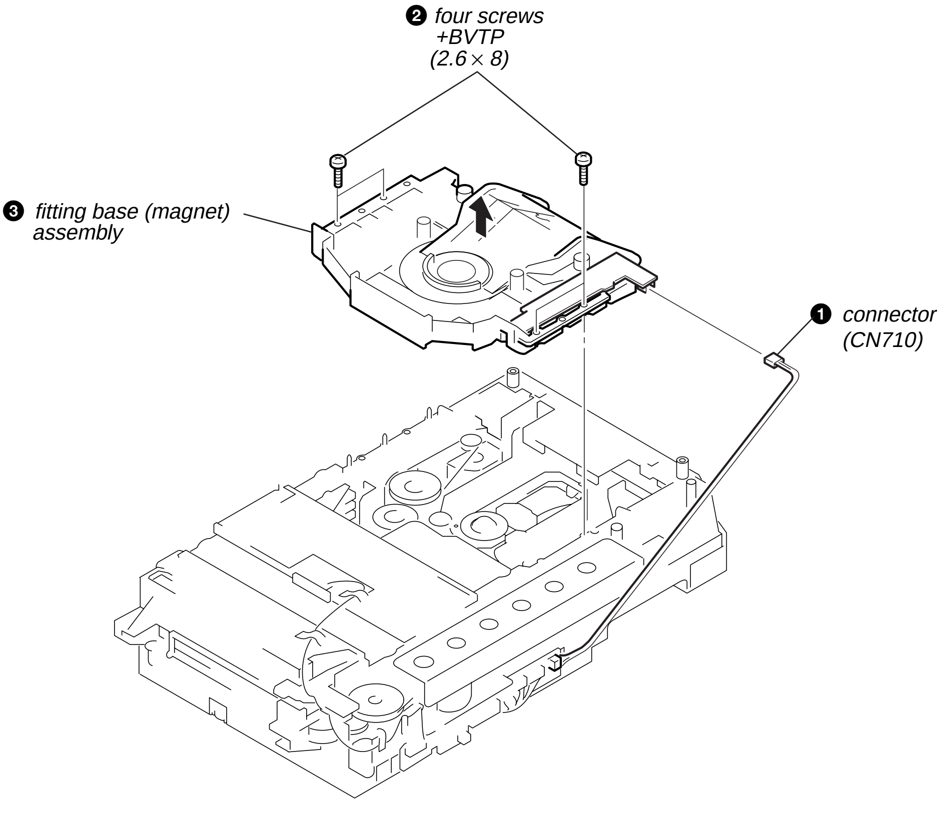
2-5. Mechanism Deck (CDM53K-DVBU7)


❻ screw, +BVTP (3 × 8)
❺ screw, +BTP (3 × 6)
❹ two screws, +BTP (3 ×12)
HARNESS PROCESSING
MD cover
❽ MD cover
HARNESS PROCESSING
MD cover
connector (CN202)
❿ four screws, +BVTP (3 × 8)
⓭ mechanism deck (CDM53K-DVBU7)
⓬ flexible flat cable (9core) (CN004)
❼ connector (CN202)
⓫ flexible flat cable (25core) (CN002)
❷ screw, +BTP (3 × 6)
❶ three screws, +BVTP (3 × 8)
❸ bracket
❾ flexible flat cable (17core) (CN701)

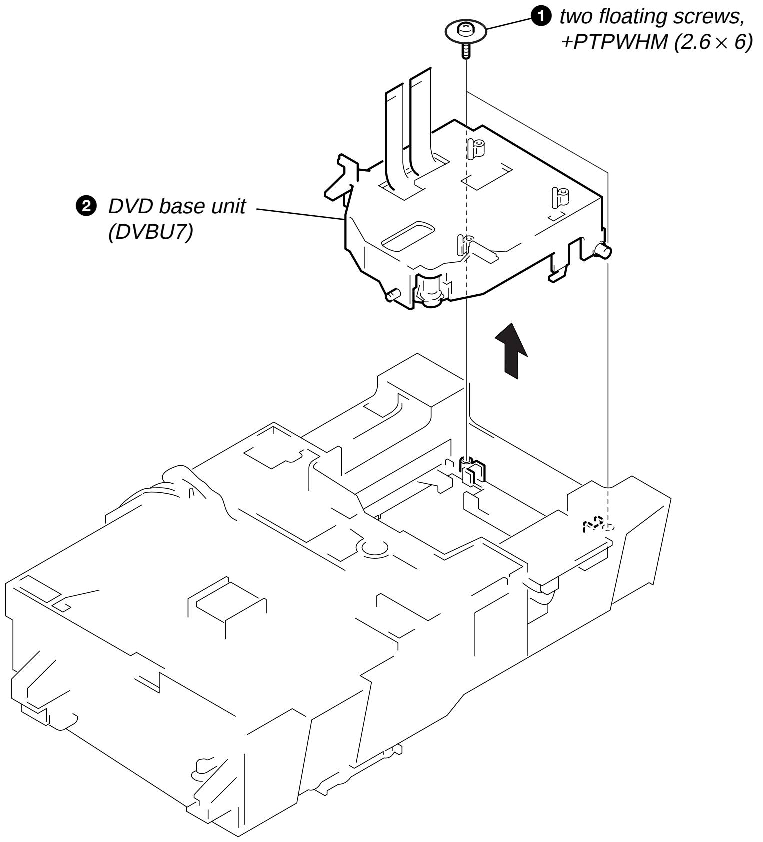
2-6. RF-240 Board


❶ three screws
+BVTP
(2.6 × 8)
❹ RF-240 board
❸ flexible flat cable (9 core)
(CN003)
❷ flexible flat cable (26 core)
(CN001)

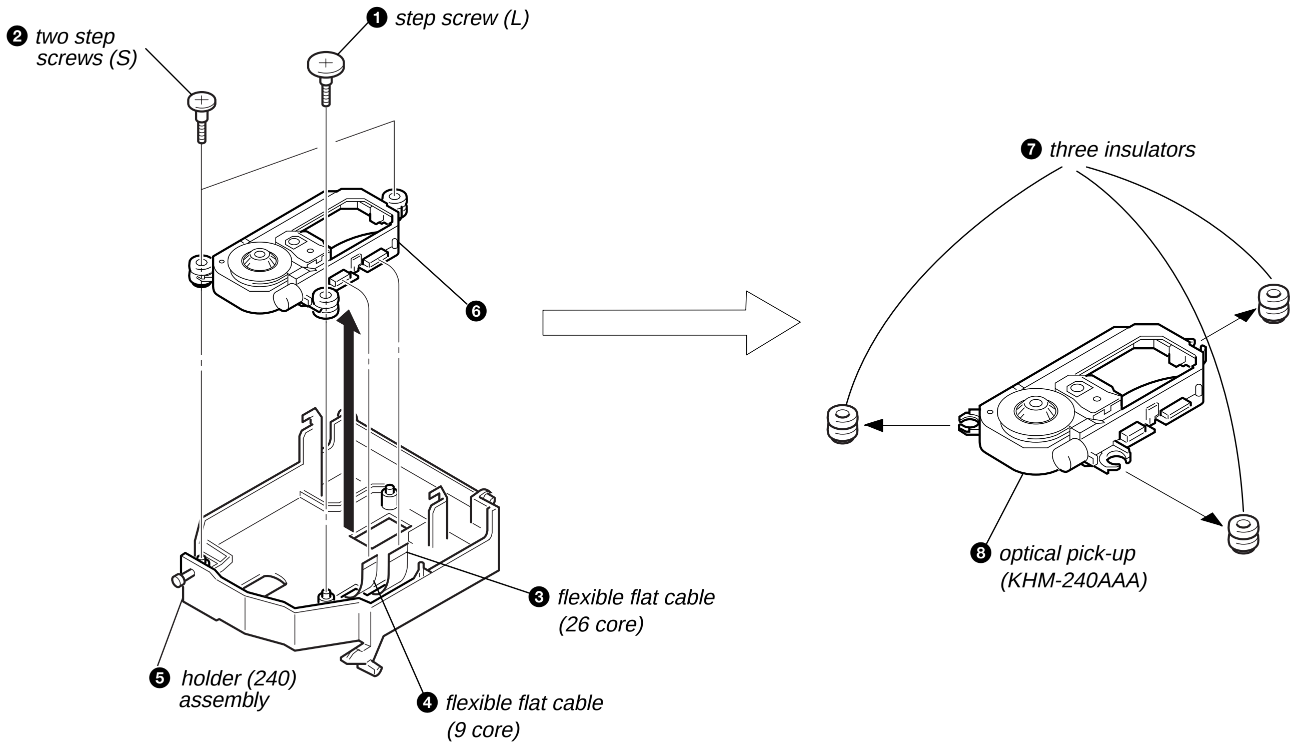
2-7. Fitting Base (Magnet) Assembly


❷ four screws
+BVTP
(2.6 × 8)
❸ fitting base (magnet)
assembly
❶ connector
(CN710)

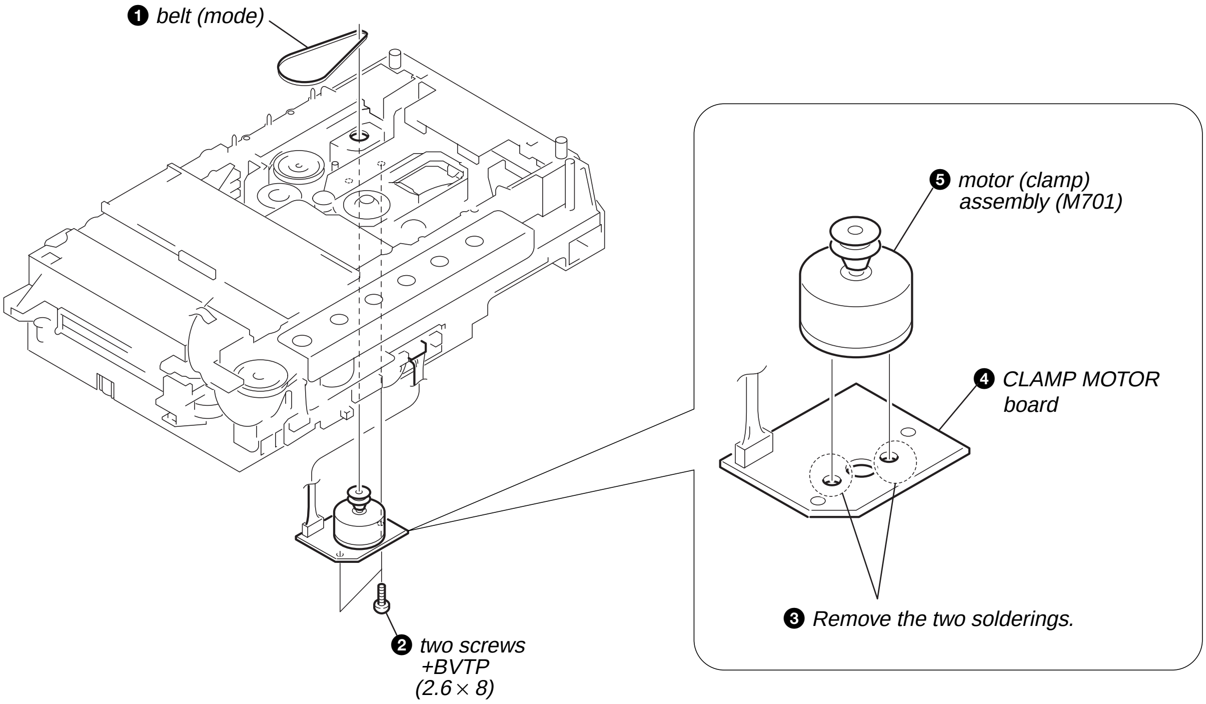
2-8. DVD Base Unit (DVBU7)


❶ two floating screws,
+PTPWHM (2.6 × 6)
❷ DVD base unit
(DVBU7)

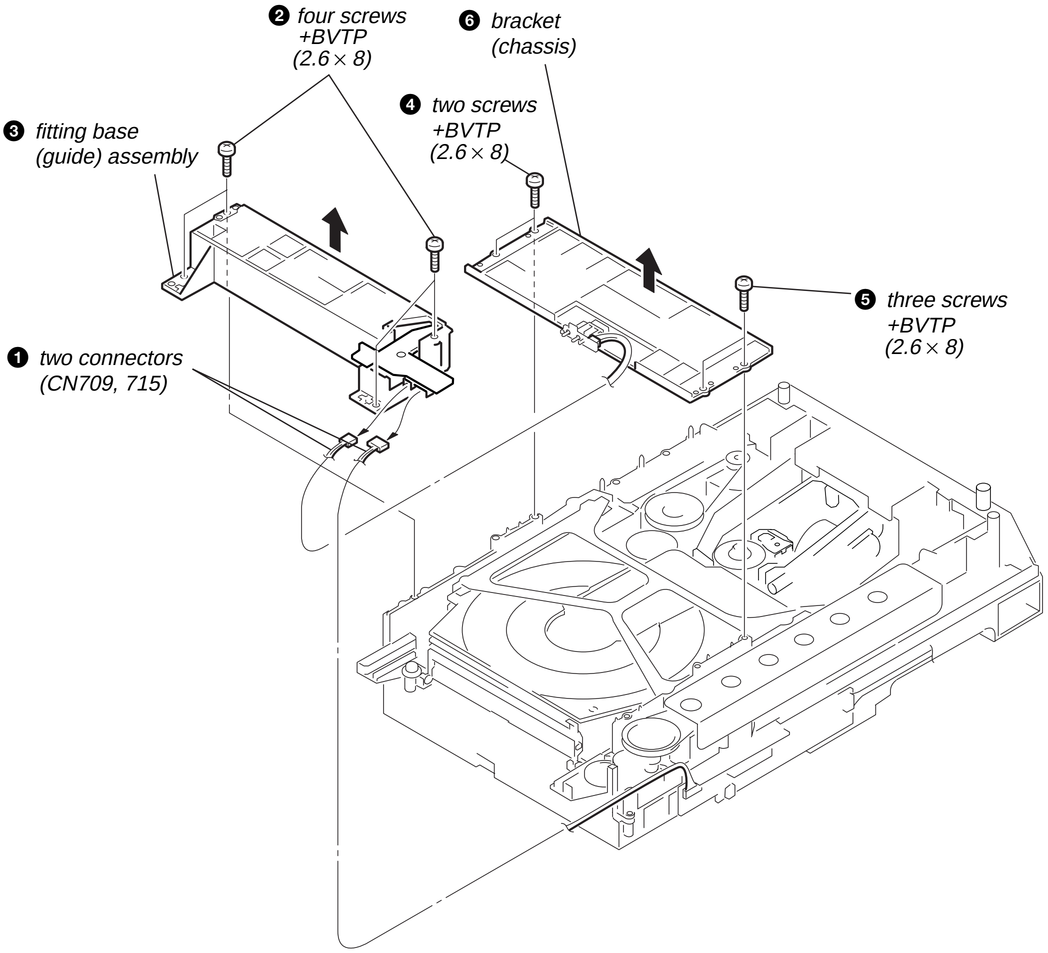
2-9. Optical Pick-up (KHM-240AAA)


❷ two step
screws (S)
❶ step screw (L)
❻
❼ three insulators
❸ flexible flat cable
(26 core)
❽ optical pick-up
(KHM-240AAA)
❺ holder (240)
assembly
❹ flexible flat cable
(9 core)

2-10. CLAMP MOTOR Board, Motor (Clamp) Assembly

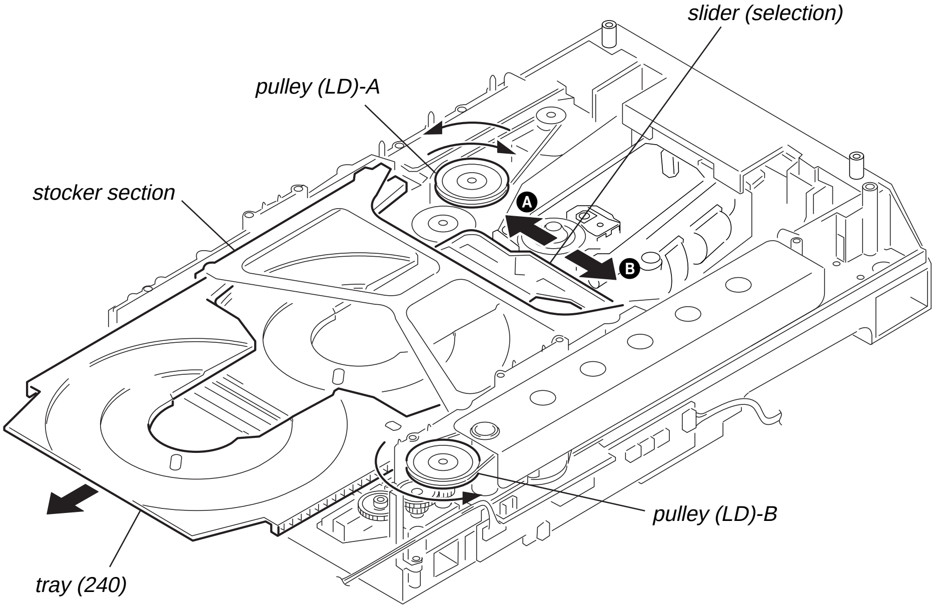

❶ belt (mode)
❺ motor (clamp) assembly (M701)
❹ CLAMP MOTOR board
❸ Remove the two solderings.
❷ two screws +BVTP (2.6 × 8)

2-11. Fitting Base (Guide) Assembly, Bracket (Chassis)

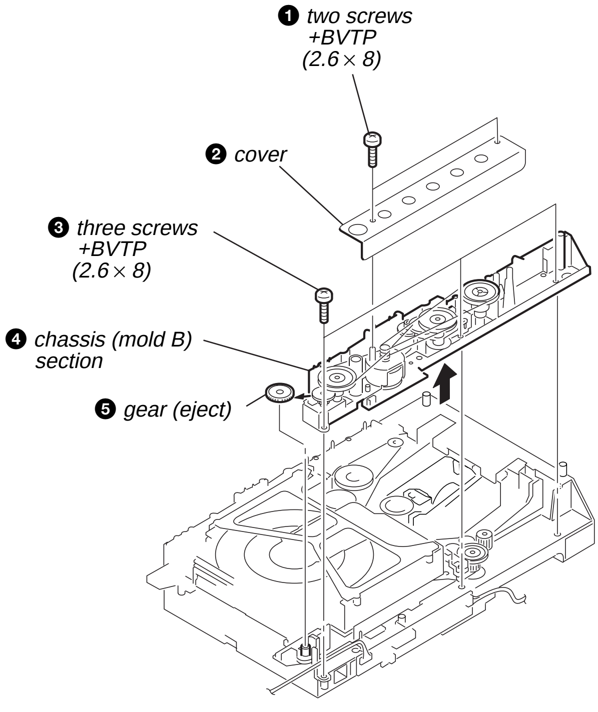

❷ four screws +BVTP (2.6 × 8)
❻ bracket (chassis)
❹ two screws +BVTP (2.6 × 8)
❸ fitting base (guide) assembly
❺ three screws +BVTP (2.6 × 8)
❶ two connectors (CN709, 715)

2-12. Tray (240)

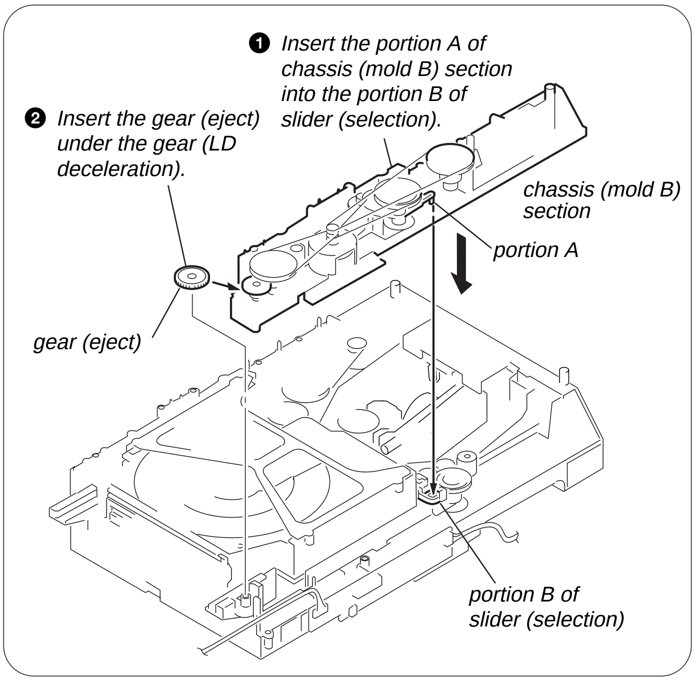
❶ *Rotating the pulley (LD)-A, shift the slider (selection) in the arrow* 🅐 *direction.*
❷ *Rotating the pulley (LD)-B in the arrow direction, adjust the tray (240) to be removed.*
❸ *Rotating the pulley (LD)-A, shift the slider (selection) in the arrow* 🅑 *direction.*
❹ *Rotating the pulley (LD)-B in the arrow direction, remove the tray (240) to be removed.*


slider (selection)
pulley (LD)-A
stocker section
A
B
pulley (LD)-B
tray (240)

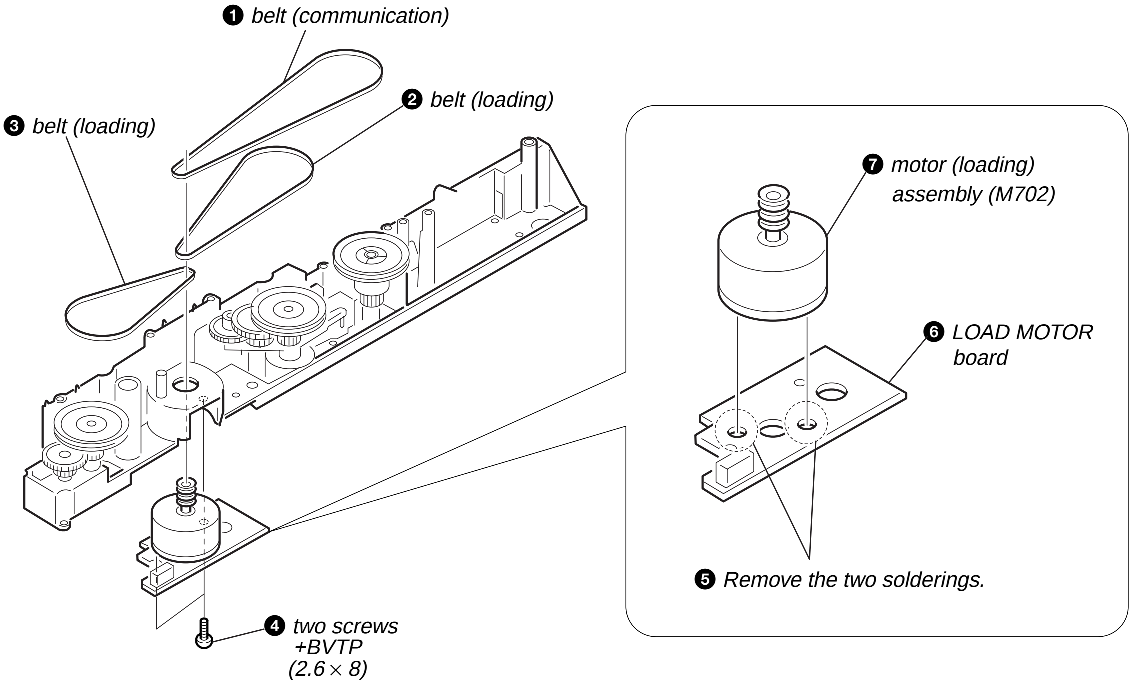
2-13. Chassis (Mold B) Section


❶ two screws +BVTP (2.6 × 8)
❷ cover
❸ three screws +BVTP (2.6 × 8)
❹ chassis (mold B) section
❺ gear (eject)

PRECAUTION DURING CHASSIS (MOLD B) SECTION INSTALLATION

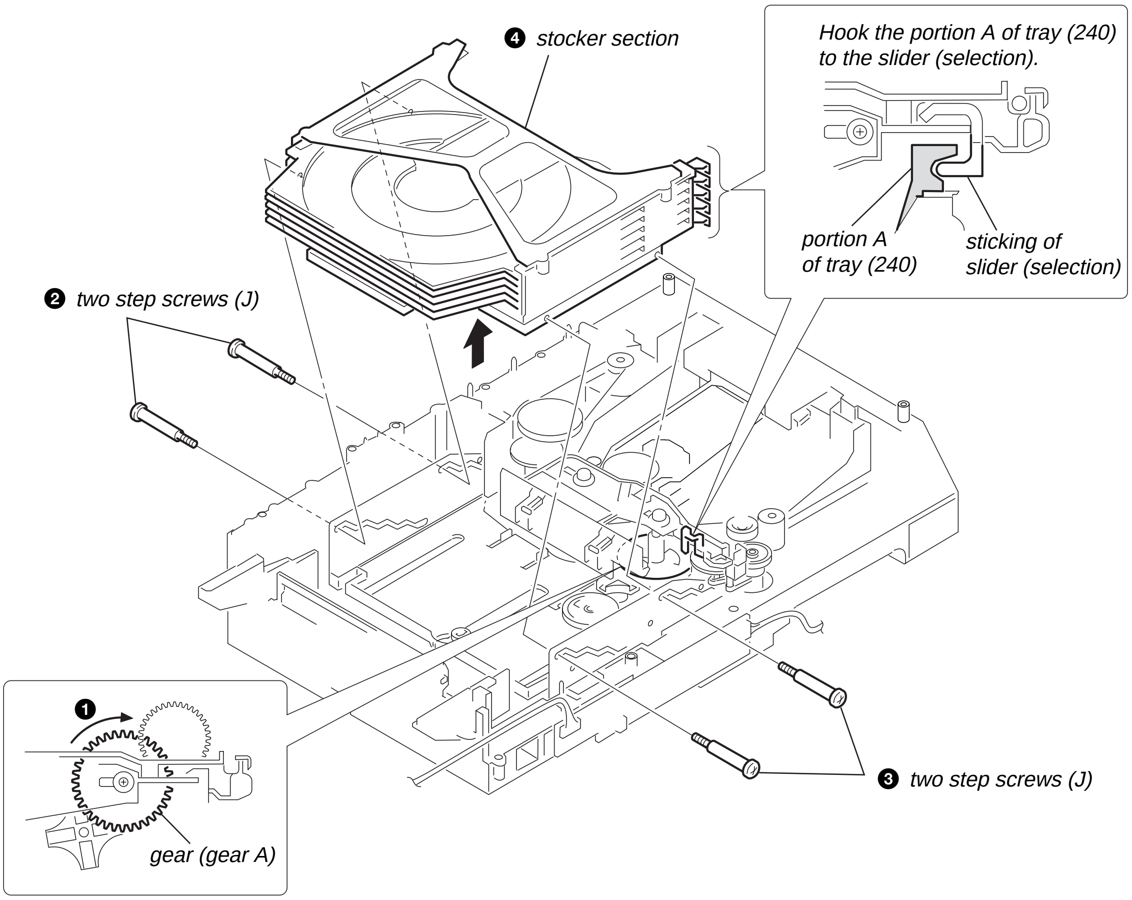

❶ Insert the portion A of chassis (mold B) section into the portion B of slider (selection).
❷ Insert the gear (eject) under the gear (LD deceleration).
chassis (mold B) section
portion A
gear (eject)
portion B of slider (selection)

2-14. LOAD MOTOR Board, Motor (Loading) Assembly (M702)


❶ belt (communication)
❷ belt (loading)
❸ belt (loading)
❼ motor (loading) assembly (M702)
❻ LOAD MOTOR board
❺ Remove the two solderings.
❹ two screws +BVTP (2.6 × 8)

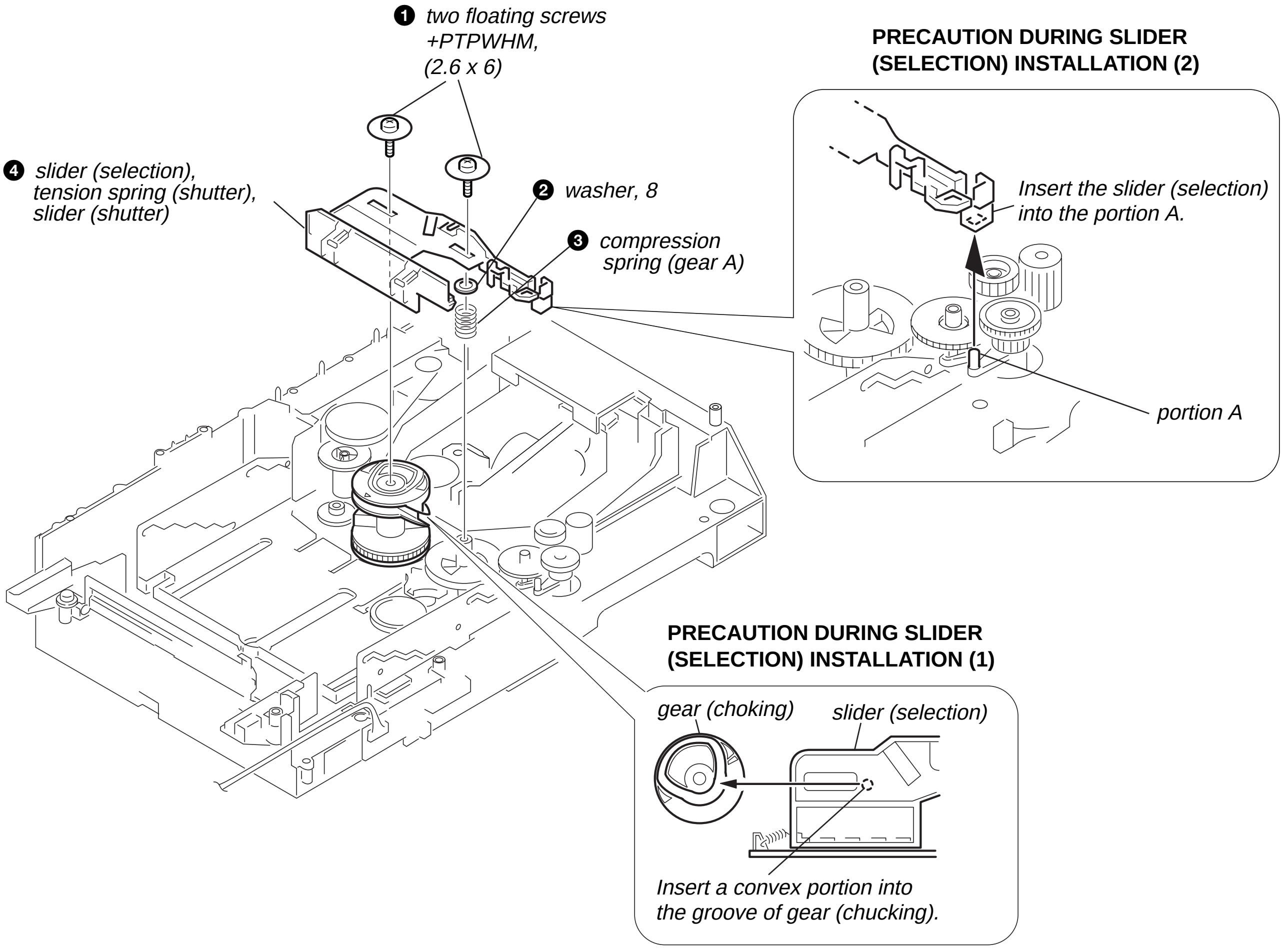
2-15. Stocker Section

PRECAUTION DURING STOCKER SECTION INSTALLATION


Hook the portion A of tray (240) to the slider (selection).

portion A of tray (240)
sticking of slider (selection)
❹ stocker section
❷ two step screws (J)
❸ two step screws (J)
❶
gear (gear A)

2-16. Slider (Selection), Tension Spring (Shutter), Slider (Shutter)



❶ *two floating screws +PTPWHM, (2.6 x 6)*

❷ *washer, 8*

❸ *compression spring (gear A)*

❹ *slider (selection), tension spring (shutter), slider (shutter)*

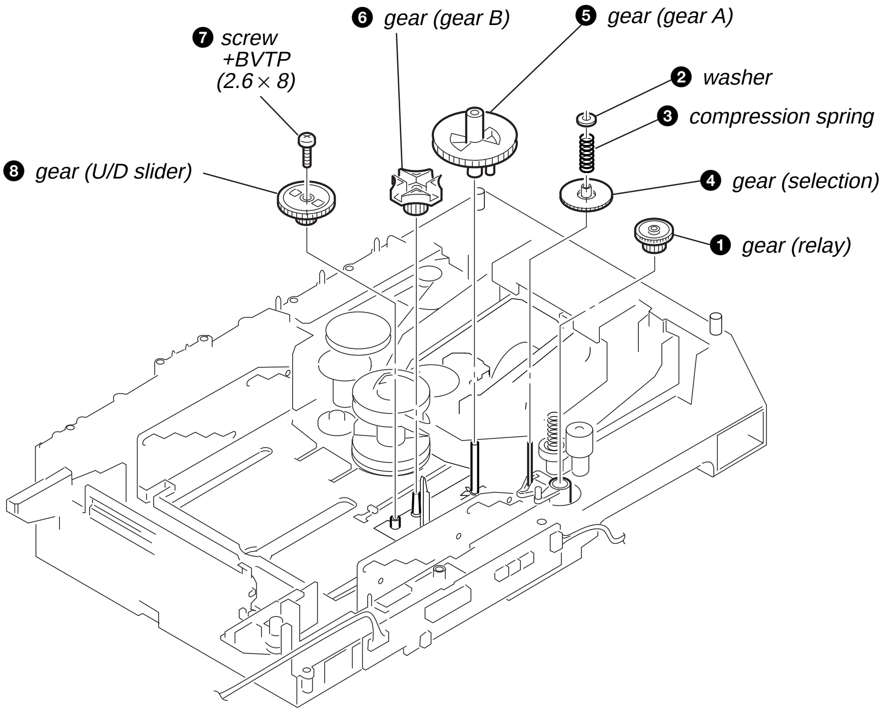
PRECAUTION DURING SLIDER (SELECTION) INSTALLATION (2)

Insert the slider (selection) into the portion A.

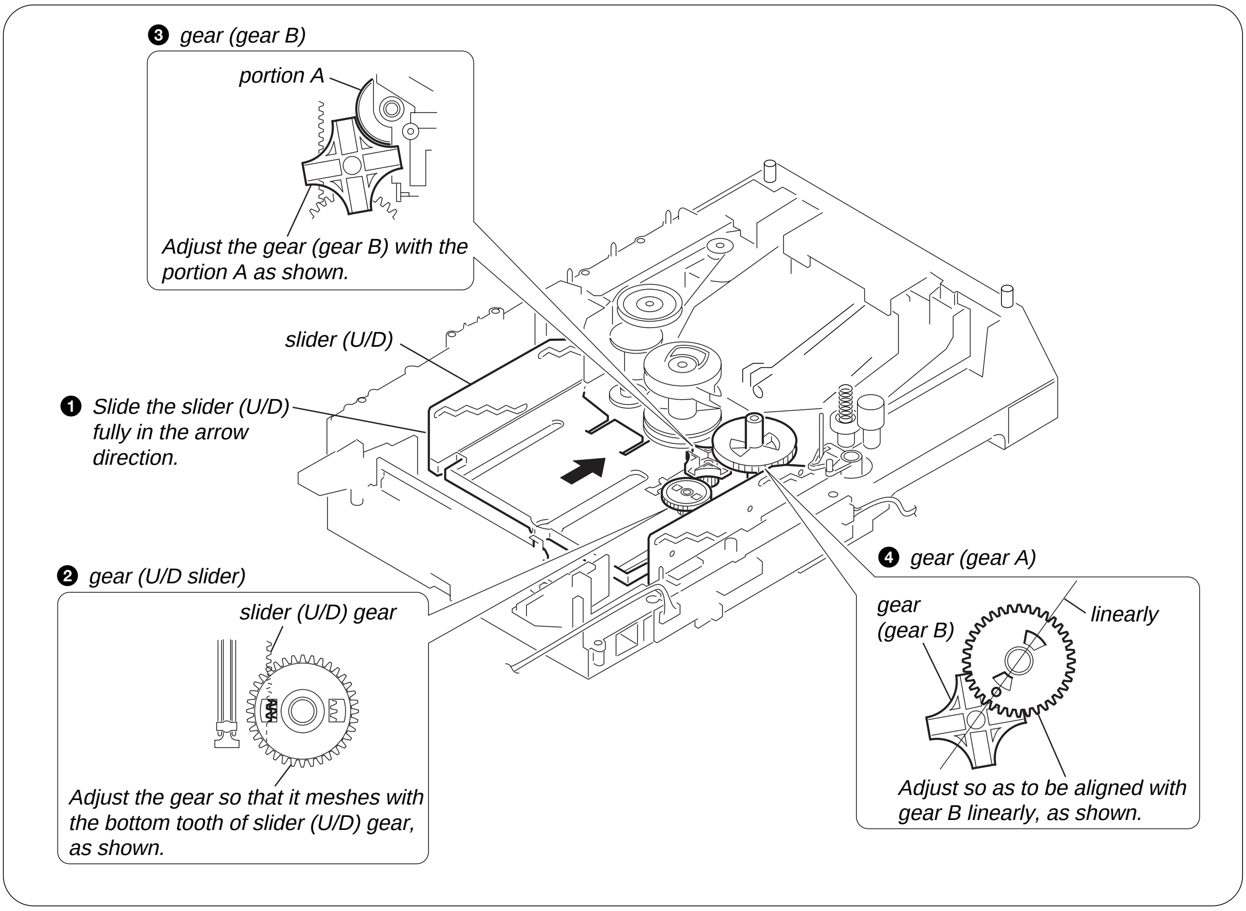
PRECAUTION DURING SLIDER (SELECTION) INSTALLATION (1)

Insert a convex portion into the groove of gear (chucking).

2-17. Gear (Gear A), Gear (Gear B), Gear (U/D Slider)


❻ gear (gear B)
❺ gear (gear A)
❼ screw +BVTP (2.6 × 8)
❷ washer
❸ compression spring
❽ gear (U/D slider)
❹ gear (selection)
❶ gear (relay)

PRECAUTION DURING GEAR (GEAR U/D SLIDER), GEAR (GEAR B), GEAR (GEAR A) INSTALLATION


❸ gear (gear B)
portion A
slider (U/D)
❷ gear (U/D slider)
slider (U/D) gear
❹ gear (gear A)
gear (gear B)
linearly

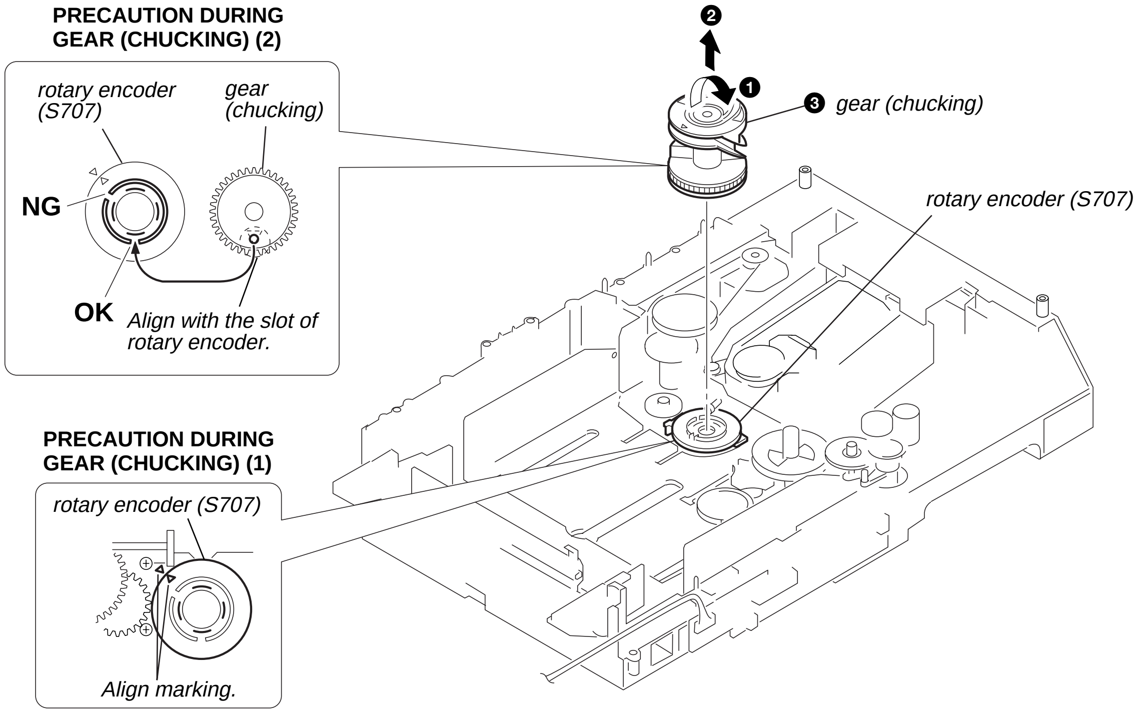
Adjust the gear (gear B) with the portion A as shown.

❶ Slide the slider (U/D) fully in the arrow direction.

Adjust the gear so that it meshes with the bottom tooth of slider (U/D) gear, as shown.

Adjust so as to be aligned with gear B linearly, as shown.

2-18. Gear (Chucking)


❷
❶
❸ gear (chucking)
rotary encoder (S707)
rotary encoder (S707)
gear (chucking)
NG
OK
rotary encoder (S707)

PRECAUTION DURING GEAR (CHUCKING) (2)

Align with the slot of rotary encoder.

PRECAUTION DURING GEAR (CHUCKING) (1)

Align marking.

SECTION 3
TEST MODE

Version Display Mode

Procedure:

1. Press the ⏏ button on the main unit or I/⏻ button on the remote commander to turn the set on.
2. Press three buttons of FUNCTION , ⏮ PREV and ⏏ (Disc 1) simultaneously for two seconds.
3. The message “VER. 1. XX ” is displayed for a moment.

Jog Test Mode

Procedure:

1. Press the ⏏ button on the main unit or I/⏻ button on the remote commander to turn the set on.
2. Press three buttons of BAND , ■ and ⏏ (Disk 5) simultaneously.
3. The fluorescent indicator displays “JOG 0”. The value “JOG 0” increases like +1, +2, +3... if rotating the VOLUME knob clockwisw,or it decreases like –1, –2, –3,.... if rotating counter-clockwise.
4. To exit from this mode, press the POWER button to turn the set off.

Key Test Mode

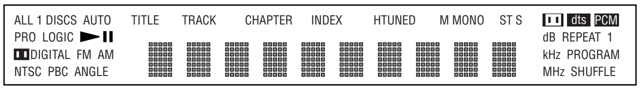
Procedure:

1. Press the ⏏ button on the main unit or I/⏻ button on the remote commander to turn the set on.
2. Press three buttons of DISPLAY, ■ and ⏏ (Disk 2) simultaneously.
3. The message “KEY NUM 0” is displayed and “0” blinks.
4. Each time a button is pressed, “KEY NUM 0” value increases. However, once a button is pressed, it is no longer taken into account.
5. When all buttons are pressed, “KEY NUM 20” appears and the number blinking is stopped.
6. To exit from this mode, press the POWER button to turn the set off.

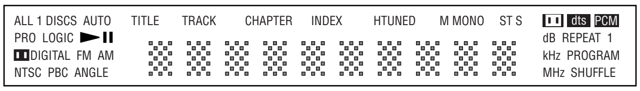
Display Test Mode

Procedure:

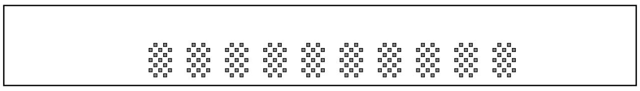
1. Press the ⏏ button on the main unit or I/⏻ button on the remote commander to turn the set on.
2. Press three buttons of BAND , ❚❚ and ⏏ (Disk 3) simultaneously.
3. All segments and five orange LEDs on the panel are turned on.



4. When the NEXT ⏭ button is pressed, the display will light up as follows. Five orange LEDs are still lit on.



5. Press the NEXT ⏭ button, confirm the display. Five orange LEDs are turned off.



6. Press the NEXT ⏭ button, all segments are turned off.
7. Every pressing of the NEXT ⏭ button turns on each segments in the same order.
8. To exit from this mode, press the POWER button to turn the set off.

OSD Test Mode

Procedure:

1. Press the ⏏ button on the main unit or I/⏻ button on the remote commander to turn the set on.
2. Set the FUNCTION to DVD.
3. While pressing two buttons of DISPLAY and ■ simultaneously, turn the VOLUME knob clockwise.
4. The Test Mode Menu is displayed on the TV screen.
5. To execute each function, select the number on the remote commander.
6. See the following section for explanation in detail.
7. To exit from this mode, press the POWER button to turn the set off.

Disc Tray Lock

Procedure:

1. Press the ⏏ button on the main unit or I/⏻ button on the remote commander to turn the set on.
2. Press two buttons of DISPLAY and ⏮ PREV simultaneously for two seconds.
3. The message “LOCKED” is displayed and the tray is locked. (Even if exiting from this mode, the tray is still locked.)
4. Press two buttons of DISPLAY and ⏮ PREV simultaneously for two seconds again.
5. The message “UNLOCKED” is displayed and the tray is unlocked.
6. To exit from this mode, press the POWER button to turn the set off.

General Description

The Test Mode allows you to make diagnosis and adjustment easily using the remote commander and monitor TV. The instructions, diagnostic results, etc. are given on the on-screen display (OSD).

[TEST DISC LIST]

Use the following test disc on test mode.

1) DVD reference disc
   HLX-501 (J-6090-071-A) (dual layer)
   HLX-503 (J-6090-069-A) (single layer)
   HLX-504 (J-6090-088-A) (single layer)
   HLX-505 (J-6090-089-A) (dual layer)
2) SACD reference disc
   HLXA-509 (J-6090-090-A)

Note: Do not use exiting test disc for DVD.

Starting Test Mode

Set the FUNCTION to DVD with the main unit power on. Next, while pushing the ■ button and the DISPLAY button on the main unit at the same time, turn the VOLUME knob to the right to start Test Mode and display the menu shown below on the TV screen. At the bottom of the menu screen, the model name and revision number are displayed.

To execute each function, select the desired menu and press its number on the remote commander. To exit from Test Mode, press the POWER button.

```
         Test Mode Menu

0. Syscon Diagnosis
1. Drive Auto Adjustment
2. Drive Manual Operation
3. Mecha Aging
4. Emergency History
5. Version Information
6. Video Level Adjustment
                Exit: POWER Key
_
Model    : HCX-1089_xx
Revision: 1.xxx      Last Off:01
```

Syscon Diagnosis

The same contents as board detail check by serial interface can be checked from the remote commander.
On the Test Mode Menu screen, press 0 key on the remote commander, and the following check menu will be displayed.

```
    ### Syscon Diagnosis ###
           Check Menu
0. Quit
1. All
2. Version
3. Peripheral
4. Servo
5. Supply
6. AV Decoder
7. Video
8. Audio
9. DSD Decoder
_
```

0. Quit

Quit the Syscon Diagnosis and return to the Test Mode Menu.

1. All

All items continuous check
This menu checks all diagnostic items continuously. Normally, all items are checked successively one after another automatically unless an error is found, but at a certain item that requires judgment through a visual check to the result, the following screen is displayed for the key entry.

```
    ### Syscon Diagnosis ###

Diag All Check
No. 2 Version

 2-3. ROM Check Sum
Check Sum = 2005



Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

For the ROM Check, the check sum calculated by the Syscon is output, and therefore you must compare it with the specified value for confirmation.
Following the message, press NEXT key to go to the next item, or PREV key to repeat the same check again. To quit the diagnosis and return to the Check Menu screen, press ■ or ENTER key. If an error occurred, the diagnosis is suspended and the error code is displayed as shown below.

```
    ### Syscon Diagnosis ###




 3-3. EEPROM Check
Error 03: EEPROM Write/Reed N
Address    : 00000001
Write Data : 2492
Read Data  : 2490
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

Press ■ key to quit the diagnosis, or PREV key to repeat the same item where an error occurred, or NEXT key to continue the check from the item next to faulty item.

Selecting 2 and subsequent items calls the submenu screen of each item.
For example, if “5. Supply” is selected, the following submenu will be displayed.

```
    ### Syscon Diagnosis ###
           Check Menu
          No. 5 Supply
0. Quit
1. All
2. ARP Register Check
3. ARP to RAM Data Bus
4. ARP to RAM Address Bus
5. ARP RAM Check
_
```

0. Quit

Quit the submenu and return to the main menu.

1. All

All submenu items continuous check
This menu checks 2 and subsequent items successively. At the item where visual check is required for judgment or an error occurred, the checking is suspended and the message is output for key entry. Normally, all items are checked successively one after another automatically unless an error is found.

Selecting 2 and subsequent items executes respective menus and outputs the results.
For the contents of each submenu, see “Check Items List”.

General Description of Checking Method

2. Version

(2-2) Revision
ROM revision number is displayed.-
Error: Not detected.
The revision number defined in the source file of ROM (At the beginning of mass production, the Flash ROM of IC107 is used, but midway it is replaced by the IC108 OTP ROM. IC107 or IC108) is displayed with four digits.
Below IC107 are all IC107 or IC108.

(2-3) ROM Check Sum
Check sum is calculated.
Error: Not detected.
The 8-bit data are added at addresses 0x000F0000 ~ 0x002EFFFF of ROM (IC107) and the result is displayed with 4-digit hexadecimal number. Error is not detected. Compare the result with the specified value.

(2-4) Model Type
Model code is displayed.
Error: Not detected.
The model code read from EEPROM (IC101) is displayed with 2-digit hexadecimal number.

(2-5) Region
Region code is displayed.
Error: Not detected.
The region code determined from the model code is displayed.

3. Peripheral

(3-2) EEPROM Check
Data write → read, and accord check
Error 03: EEPROM write/read discord
Data 0x9249, 0x2942, 0x4294 are written to addresses 0x00~0xFF of EEPROM (IC101), then read and checked. Before writing, the data are saved, then after checking, they are written to restore the contents of EEPROM.

4. Servo

(4-2) Servo DSP Check
Data write → read, and accord check
Error 12: Read data discord
Data 0x9249, 0x2942, 0x4294 are written to the address 0x602 of RAM in the Servo DSP (IC302), then read and checked.

(4-3) DSP Driver Test
Test signal data → DSP Driver
Error: Not detected.
Caution: Do not conduct this test with a mechanical deck connected.
The maximum voltage is applied to the Servo Driver IC (IC401, IC802). If mechanical deck is connected, the motor and optics could be damaged. Disconnect mechanical deck following the output message, then enter specified 4- or 5-digit number from the remote commander, and press the ENTER. The test is conducted only when the input data accord. Check the output level, then press the NEXT to finish the test.
This test is skipped if “All” is selected.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN009 and CN010 of MB-82/85 board. Also, disconnect harness from the CN201.

5. Supply

Caution: Do not conduct this check with a mechanical deck connected.
An access is made to the stream supply and Servo Control IC (IC302) and external RAM (IC303) using check data. If mechanical deck is connected, the motor and optics could be damaged. This check is also executed by the “All” menu item.

Supplement: How to disconnect mechanical deck
Disconnect flat cables connected to the CN009 and CN010 of DVD board. Also, disconnect harness from the CN201.

(5-2) ARP Register Check
Data write → read, and accord check
Error 08: ARP register write, and read data discord
Data 0x00 to 0xFF are written to the TMAX register (address 0xC6) in ARP (IC302), then they are read and checked.

(5-3) ARP to RAM Data Bus
Data write → read, and accord check
Error 09: ARP ←→ RAM data bus error
Data 0x0001 to 0x8000 where one bit each is set to 1 are written to the address 0 of RAM (IC303) connected to the ARP (IC302) through the bus, then they are read and checked. In case of discord, written bit pattern and read data are displayed. If data where multiple bits are 1 are read, the bits concerned may touch each other. Further, if data where certain bit is always 1 or 0 regardless of written data, the line could be disconnected or shorted.

(5-4) ARP to RAM Address Bus
Data write → other address read discord check
Error 10: ARP → RAM address bus error
Caution: Address and data display in case of an error is different from the display of other diagnosis (described later).
Before starting the test, all addresses of RAM (IC303) are cleared to 0x0000.
First, 0xA55A is written to the address 0x00000, and the address data are read and checked from addresses 0x00001 to 0x80000 while shifting 1 bit each. Next, the data at that address is cleared, and it is written to the address 0x00001, and read and checked in the same manner. This check is repeated up to the address 0x80000 while shifting the address data by 1 bit each.
If data other than 0 is read at the addresses except written address, an error is given because all addresses were already cleared to 0. In this check, the error display pattern is different from that of other diagnosis; read data, written address, and read address are displayed in this order. However, the message uses same template, and accordingly exchange Address and Data when reading. The following display, for example,

```
    ### Syscon Diagnosis ###




 5-4. ARP to RAM Address Bus
Error 10: ARP - RAM Address B
Address    : 0000A55A
Write Data : 00000000
Read Data  : 00080000
Press NEXT Key to Continue
Press PREV Key to Repeat
_
```

shows the data 0xA55A was read from address 0x00080000 though it was written to the address 0x00000000. This implies that these addresses are in the form of shadow. Also, if the read data is not 0xA55A, another error will be present.

(5-5) ARP RAM Check
Data write → read, and accord check
Error 11: ARP RAM read data discord
The program code data stored in ROM are copied to all areas of RAM (IC303) connected to the ARP (IC302) through the bus, then they are read and checked if they accord. If the detail check was selected initially, the data are written to all areas and read, then the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 11, and the test is suspended.

6. AV Decoder

(6-2) 1930 RAM
Data write → read, and accord check
Error 13: AVD RAM read data discord

The program code data stored in ROM (IC107 or IC108) are copied to all areas oo»RAM (IC504, IC505) connected to the AVD (IC503) through the bus, then they are read and checked if they accord. Further, the same test is conducted once again with the data where all bits are inverted between 1 and 0. If discord is detected, faulty address, written data, and read data are displayed following the error code 13, and the test is suspended.

(6-3) 1930 SP
ROM → AVD RAM → Video OUT
Error: Not detected.

The data including sub picture streams in ROM (IC107 or IC108) are transferred to the RAM (IC504, IC505) in AVD (IC503), and output as video signals from the AVD (IC503). They are output from all video terminals (Composite, Y/C).

7. Video

(7-2) Color Bar
AVD color bar command write → Video OUT
Error: Not detected.

The command is transferred to the AVD, and the color bar signals are output from video terminals.
They are output from all video terminals (Composite, Y/C).

(7-3) Composit Out

(7-4) Y/C Out

(7-6) Component Out

8. Audio

(8-2) ARP → 1930
Error 14 : ARP → 1930 video NG
15 : ARP → 1930 audio NG

(8-3) Test Tone
All channels
2ch Left
2ch Right
Front Left
Front Right
Rear Left
Rear Right
Center
Sub Woofer

9. DSD Decoder

(9-2) 2752 ID Chack

(9-3) 2752 RAM Check

Check Items List

2) Version
(2-2) Revision
(2-3) ROM Check Sum
(2-4) Model Type
(2-5) Region

3) Peripheral
(3-2) EEPROM Check

4) Servo
(4-2) Servo DSP Check
(4-3) DSP Driver Test

5) Supply
(5-2) ARP Register Check
(5-3) ARP to RAM Data Bus
(5-4) ARP to RAM Address Bus
(5-5) ARP RAM Check

6) AV Decoder
(6-2) 1930 RAM
(6-3) 1930 SP

7) Video
(7-2) Color Bar
(7-3) Composit Out
(7-4) Y/C Out
(7-6) Component Out

8) Audio
(8-2) ARP → 1930
(8-3) Test Tone

9) DSD Decoder
(9-2) 2752 ID Check
(9-3) 2752 RAM Check

Error Codes List

00: Error not detected
01: RAM write/read data discord
02: Gate array NG
03: EEPROM NG
08: ARP register read data discord
09: ARP ←→ RAM data bus error
10: ARP ←→ RAM address bus error
11: ARP RAM read data discord
12: Servo DSP NG
13: 1930 SDRAM NG
14: ARP → 1930 video NG
15: ARP → 1930 audio NG
16: 1910 UCODE download NG
17: System call error (function not supported)
18: System call error (parameter error)
19: System call error (illegal ID number)
20: System call error (time out)
90: Error occurred
91: User verification NG
92: Diagnosis cancelled

Drive Auto Adjustment

On the Test Mode Menu screen, press 1 key on the remote commander, and the drive auto adjustment menu will be displayed.

```
   ## Drive Auto Adjustment ##

         Adjustment Menu

 0. ALL
 1. DVD-SL
 2. CD
 3. DVD-DL
 4. LCD



                   Exit: RETURN
```

Normally, 0 is selected to adjust DVD (single layer), CD, DVD (dual layer), and SACD in this order. But, individual items can be adjusted for the case where adjustment is suspended due to an error. In this mode, the adjustment can be made easily through the operation following the message displayed on the screen.
The disc used for adjustment must be the one specified for adjustment. However, for SACD disc, use the player with initial data if the disc is not available.

Note: After parts related to the servo circuit (RF amplifier, DSP, motor driver, EEPROM (IC302) so on) are replaced, re-adjusting the servo circuit is necessary. Select “ALL” at “DRIVE AUTO ADJUSTMENT ” and adjust DVD-SL (single layer), CD and DVD-DL (dual layer).

0. ALL

Select 0 and press ENTER key, and the servo set data in EEPROM will be initialized. Then, 1. DVD-SL disc, 2. CD disc, 3. DVD-DL disc, and 4. SACD disc are adjusted in this order. Each time one disc was adjusted, it is ejected. Replace it with the specified disc following the message. Though the message to confirm whether discs other than SACD disc are adjusted is not displayed, you can finish the adjustment if pressing the ■ button. During adjustment of each disc, the measurement for disc type judgment is made. As automatic adjustment does not judge the disc type unlike conventional models, take care not to insert wrong type discs. Also, do not give a shock during adjustment.

1. DVD-SL (single layer)

Select 1, insert DVD single layer disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Single Layer Disc Adjustment Steps
1. SLED TILT Reset
2. Disc Check Memory SL
3. Wait 300 msec
4. Set Disc Type SL
5. LD ON
6. Spdl Start
7. Wait 1 sec
8. Focus Servo ON 0
9. Auto Track Offset Adjust
10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. Wait 1 sec
14. Sled ON
15. Check CLV Lock
16. Auto LFO Adjust
17. Auto Focus Offset Adjust
18. Auto Tilt Position Adjust
19. Auto Focus Gain Adjust
20. Auto Focus Offset Adjust
21. EQ Boost Adjust
22. Auto LFO Adjust
23. Auto Track Gain Adjust, Search Check
24. 32Tj Fwd
25. 32Tj Rev
26. 500Tj Fwd
27. 500Tj Rev

28. All Servo Stop
29. Eep Copy Loop Filter Offset

2. CD

Select 2, insert CD disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

CD Adjustment Steps
1. Sled Tilt Rest
2. Disc Check Memory CD
3. Wait 500 msec
4. Set Disc Type CD
5. LD ON
6. Spdl Start
7. Wait 500 msec
8. Focus Servo ON 0
9. Auto Track Offset Adjust

10. CLVA ON
11. Wait 500 msec
12. Tracking ON
13. (TC Display Start)
14. Wait 1 sec
15. Jitter Display Start
16. Sled ON
17. Check CLV ON
18. Auto LFO Adjust
19. Auto Focus Offset Adjust
20.
21. Auto Focus Gain Adjust
22. Auto Focus Offset Adjust
23. Eq Boost Adjust
24. Auto LFO Adjust
25. Auto Track Gain Adjust, Search Check
26. 32Tj Fwd
27. 32Tj Rev
28. 500Tj Fwd
29. 500Tj Rev

30. All Servo Stop

3. DVD-DL (dual layer)

Select 3, insert DVD dual layer disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM.

DVD Dual Layer Disc Adjustment Steps
1. Sled Tilt Reset
2. Disc Check Memory DL
3. Wait 500 msec
4. Set Disc Type DL
5. LD ON
6. Spdl Start
7. Wait 1 sec, Layer 1 Adjust
8. Focus Servo ON 0
9. Auto Track Offset Adjust

10. Clva ON
11. Wait 500 msec
12. Tracking ON
13. Wait 500 msec
14. Sled ON
15. Check CLV Lock
16. Auto Loop Filter Offset Auto Focus Adjust
17.
18. Auto Focus Gain Adjust
19. Auto Focus Offset Adjust
20. Eq Boost Adjust
21. Auto Loop Filter Offset
22. Auto Track Gain Adjust, Search Check
23. 32Tj Fwd
24. 32Tj Rev
25. 500Tj Fwd
26. 500Tj Rev, Layer 0 Adjust
27. Fj (L1 -> L0)
28. Auto Track Offset Adjust L0

29. Clva ON
30. Wait 500 msec
31. Tracking ON
32. Wait 500 msec
33. Sled ON
34. Check CLV Lock
35. Auto Focus Filter Offset
36. Auto Focus Adjust
37.
38. Auto Focus Gain Adjust
39. Auto Focus Offset Adjust
40. Eq Boost Adjust
41. Auto Loop Filter Offset
42. Auto Track Gain Adjust, Search Check
43. 32Tj Fwd
44. 32Tj Rev
45. 500Tj fwd
46. 500Tj Rev, Layer Jump Check
47. Lj (L0 -> L1)
48. Lj (L1 -> L0)

49. All Servo Stop

4. LCD

Select 4, insert SACD disc, and press ENTER key, and the adjustment will be made through the following steps, then adjusted values will be written to the EEPROM. However, if SACD disc is not available, use the player with initial data, skipping the SACD adjustment. In this case, you can finish the adjustment if pressing the ■ button.

SACD Adjustment Steps
1. Sled Tilt Reset
2. Set Disc Type CD
3. LD ON
4. Spdl Start
5. Wait 500 msec
6. Focus Servo ON 0
7. Auto track Offset Adjust
8.
9. CLVA ON
10. Wait 500 msec
11. Tracking ON
12. Wait 1 sec
13. Sled ON
14. Check CLV ON
15. Auto Focus Offset Adjust
17.
18. Auto Focus Gain Adjust
19. Auto Focus Offset Adjust
20. Eq Boost Adjust
21. Auto LFO Adjust
22. Auto Track Gain Adjust

23. 32Tj Fwd
24. 32Tj Rev
25. 500Tj Fwd
26. 500Tj Rev

27. All Servo Stop */

Drive Manual Operation

On the Test Mode Menu screen, select 2, and the manual operation menu will be displayed. For the manual operation, each servo on/off control and adjustment can be executed manually.

```
  ## Drive Manual Operation ##

         Operation Menu
1. Disc type
2. Servo Control
3. Track/Layer Jump
4. Manual Adjustment
5. Auto Adjustment
6. Memory Check
7. Sacd Water Mark
0. Disc Check Memory
_
                Exit: Return
```

In using the manual operation menu, take care of the following points. These commands do not provide protection, thus requiring correct operation. The sector address or time code field is displayed when a disc is loaded.

1. Set correctly the disc type to be used on the Disc Type screen.
   The disc type must be set after a disc was loaded.
   The set disc type is cleared when the tray is opened.
2. After power ON, if the Drive Manual Operation was selected, first perform “Reset SLED TILT” by opening 1. Disc Type screen.
3. In case of an alarm, immediately press the ■ button to stop the servo operation, and turn the power OFF.

Basic operation (controllable from front panel or remote commander)

POWER	Power OFF
■	Servo stop
OPEN/CLOSE	Stop+Eject/Loading
RETURN	Return to Operation Menu or Test Mode Menu
NEXT, PREV	Transition between sub modes of menu
1 to 9, 0	Selection of menu items
Cursor UP/DOWN	Increase/Decrease in manually adjusted value

0. Disc Check Memory

```
            Disc Check



1. SL Disc Check
2. CD Disc Check
3. DL Disc Check




0. Reset SLED TILT
_
```

On this screen, the mirror time is measured to judge the disc and it is written to the EEPROM. First load DVD SL disc and press [1], next load CD disc and press [2], and finally load DVD DL disc and press [3].
The adjustment must be executed more than once after default data were written. External vibration or shock to the player must not be given. Reference value for DVD is from 10 to 20, and for CD, from 28 to 4F.
Check that the value of CD is larger than that of DVD.
When those values are beyond a range perform this adjustment again.
From this screen, you can go to another mode by pressing [NEXT] or [PREV] key, but you cannot enter this mode from another mode.
You can enter this mode from the Operation Menu screen only.

1. Disc Type

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. LCD      12 cm
6. DVD SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. LCD      8 cm
0. Reset SLED TILT
                      EMG. 00
```

On this screen, select the disc type. To select the disc type, press the number of the loaded disc. The selected disc type is displayed at the bottom. Selecting [1] automatically selects and displays the disc type. In case of wrong display, retry “Disc Check Memory”. Also, opening the tray causes the set disc type to be cleared. In this case, set the disc type again after loading.
In performing manual operation, the disc type must be set.
Once the disc type has been selected, the sector address or time code display field will appear as shown below. These values are displayed when PLL is locked.

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. LCD      12 cm
6. DVD SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. LCD      8 cm
0. Reset SLED TILT
        SA.      SI.    EMG. 00
DVD SL 12 cm
```

Display when DVD SL 12cm disc was selected

```
           Disc Type
1. Disc Type Auto Check
2. DVD SL   12 cm
3. DVD DL   12 cm
4. CD       12cm
5. LCD      12 cm
6. DVD SL   8 cm
7. DVD DL   8 cm
8. CD       8 cm
9. LCD      8 cm
0. Reset SLED TILT
         TC.——:——:—— EMG. 00
CD   12 cm
```

Display when CD 12cm disc was selected

[0] Reset SLED TILT	Reset the Sled and Tilt to initial position.
[1] Disk Type Check	Judge automatically the loaded disc. As the judged result is displayed at the bottom of screen, make sure that it is correct. If Disc Check Memory menu has not been executed after EEPROM default setting, the disc type cannot be judged. In this case, return to the initial menu and make a check for three types of discs (SL, DL, CD).
[2] to [9]	Select the loaded disc. The adjusted value is written to the address of selected disc. No further entry is necessary if [1] was selected.

2. Servo Control

```
         Servo Control
1. LD         Off R.Sled FWD
2. SP         Off L.Sled REV
3. Focus      Off
4. TRK.       Off
5. Sled       Off
6. CLVA       Off
7. FCS. Srch Off


0. Reset SLED TILT
        SA.————SI.—— EMG. 00
DVD SL 12 cm
```

On this screen, the servo on/off control necessary for replay is executed. Normally, turn on each servo from 1 sequentially and when CLVA is turned on, the usual trace mode becomes active. In the trace mode, DVD sector address or CD time code is displayed. This is not displayed where the spindle is not locked.
The spindle could run overriding the control if the spindle system is faulty or RF is not present. In such a case, do not operate CLVA.

0	Reset SLED TILT	Reset the Sled and Tilt to initial position.
1	LD	Turn ON/OFF the laser.
2	SP	Turn ON/OFF the spindle.
3	Focus	Search the focus and turn on the focus.
4	TRK	Turn ON/OFF the tracking servo.
5	Sled	Turn ON/OFF the sled servo.
6	CLVA	Turn ON/OFF normal servo of spindle servo.
7	FCS. Srch	Apply same voltage as that of focus search to the focus drive to check the focus drive system.
→	Sled FWD	Move the sled outward. Perform this operation with the tracking servo turned off.
←	Sled REV	Move the sled inward. Perform this operation with the tracking servo turned off.
↑	Tilt UP	Move the tilt upward.
↓	Tilt DOWN	Move the tilt downward.

The following menus are normally not used.

3. Track/Layer Jump

4. Manual Adjustment

5. Auto Adjustment

The persons who do not know well about these menus should not use them.

6. Memory Check

```
EEPROM Data1
                  -- DL --
              CD LCD   SL  L0  L1
Focus Gain    xx xx    xx  xx  xx
TRK. Gain     xx xx    xx  xx  xx
FCS Balance   xx xx    xx  xx  xx
Focus Bias    xx xx    xx  xx  xx
TRV. Offset   xx xx    xx  xx  xx
L. F. Offset  xx xx    xx  xx  xx
EQ Boost      xx xx    xx  xx  xx
Mirror Time   xx xx    xx  xx  xx
_DOWN: Next Data
CLEAR: Default Set     page.1/2
```

```
EEPROM Data1
                  -- DL --
              CD LCD   SL  L0  L1
RF Jitter     xx --    xx  xx  xx
RF Level      xx --    xx  --  --
FE Level      xx --    xx  --  --
FE Balance    xx --    xx  --  --
TRV. Level    xx --    xx  --  --
Analog FRSW   xx xx    xx  xx  xx
PLL DacGain   xx xx    xx  xx  xx
_
 UP  : Prev Data
CLEAR: Default Set     page.2/2
```

This screen displays current servo adjusted data stored in the EEPROM. Though adjusted data can be initialized with the CLEAR key, they cannot be restored after initialization.
So, before clearing, make a note of the adjusted data.
For reference, the drive has been designed so that the gain center value is 20 and offset value is 80. Other values will be in a range of 10 to 80. If extreme value such as 00 or FF is set, adjustment will be faulty. In such a case, check for disc scratch or cable disconnection, then perform adjustment again.

7. Sacd Water Mark

Mecha Aging

```
    ### Aging Test MENU ###

         Operation Menu

1.Changer Open/Close Test

2.Changer Exchange Test




_
                    Exit: RETURN
```

On the Test Mode Menu Screen, selecting 3 executes the aging of the mechanism. Start aging with PLAY. During aging, the repeat cycle is displayed. Aging can be aborted at any time by pressing the ■ key. After the operation is stopped, press the RETURN key again to return to the Test Mode Menu.

Emergency History

```
      ### EMG. History ###

Laser Hours     CD   xxxxxxxh
                DVD  xxxxxxxh

1. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

2. 00 00 00 00  00 00 00 00
   00 00 00 00  00 00 00 00

Select: 1 – 9   Scroll: UP/DOWN
(1: Last EMG.)   Exit: RETURN
```

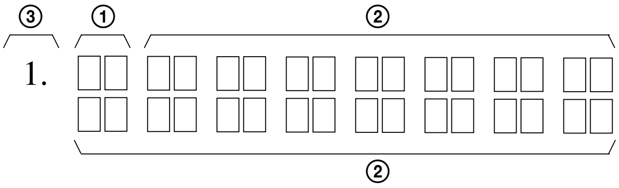
On the Test Mode Menu screen, selecting 4 displays the information such as servo emergency history. The history information from last 1 up to 10 can be scrolled with ↑ key or ↓ key. Also, specific information can be displayed by directly entering that number with ten keys.

The upper two lines display the laser ON total hours. Data below minutes are omitted.

Clearing History Information

Clearing laser hours
◎ Press DVD DISPLAY and CLEAR keys in this order.
Both CD and DVD data are cleared.
Clearing emergency history
◎ Press TITLE and CLEAR keys in this order.
Initializing set up data
◎ Press DVD MENU and CLEAR keys in this order.
The data have been initialized when "Set Up Initialized" message is displayed. The EMG. History screen will be restored soon.

How to see Emergency History



① : Emergency Code
② : Don't Care
These codes are used for verification of software designing.
③ : Historical order 1 to 9

Emergency Codes List

10: Communication to IC001 (RF-240 board) failed.
11: Each servo for focus, tracking, and spindle is unlocked.
12: Communication to EEPROM, IC101 (DVD board) failed.
13: Writing of hours meter data to EEPROM, IC101 (DVD board) failed.
14: Communication to Servo DSP IC302 (DVD board) failed, or Servo DSP is faulty.
20: Initialization of tilt servo and sled servo failed. They are not placed in the initial position.
21: Tilt servo operation error
22: Syscon made a request to move the tilt servo to wrong position.
23: Sled servo operation error
24: Syscon made a request to move the sled servo to wrong position.
30: Tracking balance adjustment error
31: Tracking gain adjustment error
32: Focus balance adjustment error
33: Focus bias adjustment error
34: Focus gain adjustment error
35: Tilt servo adjustment error
36: RF equalizer adjustment error
37: RF group delay adjustment error
38: Jitter value after adaptive servo operation is too large.
40: Focus servo does not operate.
41: With a dual layer (DL) disc, focus jump failed.50: CLV (spindle) servo does not operate.
51: Spindle does not stop.
60: With a DVD disc, Syscon made a request to seek nonexistent address.
61: With a CD disc, Syscon made a request to seek nonexistent address.
62: With a CD disc, Syscon made a request to seek nonexistent track No. and index No.
63: With a DVD disc, seeking of target address failed.
64: With a CD disc, seeking of target address failed.
65: With a CD disc, seeking of target index failed.
70: With a DVD disc, physical information data could not be read.
71: With a CD disc, TOC data could not be read.
80: Disc type judgment failed.
81: As disc type judgment failed, retry was repeated.
82: As disc type judgment failed, a measurement error occurred.
83: Disc type could not be judged within the specified time.
84: Illegal command code was received from Syscon.
85: Illegal command was received from Syscon.

Version Information

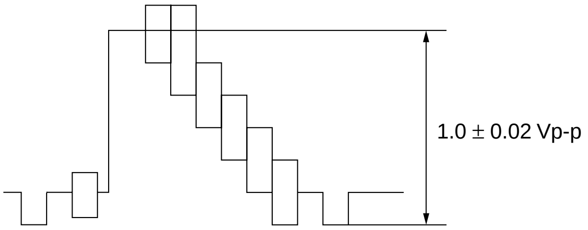
```
    ## Version Information ##

IF con.    Ver: x. xxx (xxxx)
           Group    00

SYScon.    Ver: x. xxx (xxxx)
           Model    xx
           Region   0x


Servo DSP Ver:X.XXX
OPT Type:2 Laser
                    Exit: RETURN
```

On the Test Mode Menu screen, selecting 5 displays the ROM version and region code.
The parenthesized hexadecimal number in version field is checksum value of ROM.

Video Level Adjustment

On the Test Mode Menu screen, selecting 6 displays color bars for video level adjustment. During display of color bars, OSD disappears but the menu screen will be restored if pressing any key.

Measurement point : MONITOR OUT VIDEO
(75 Ω terminating resistance)
Measuring instrument : Oscilloscope
Adjustment device : RV501 on DVD board
Specified value : 1.0 ± 0.02 Vpp



SECTION 4
ELECTRICAL ADJUSTMENT

In making adjustment, refer to Adjustment Related Parts Arrangement.

Note: During diagnostic check, the characters and color bars can be seen only with the NTSC monitor. Therefore, for diagnostic check, use the monitor that supports both NTSC and PAL modes

This section describes procedures and instructions necessary for adjusting electrical circuits in this set.

Instruments required:

1) Color monitor TV
2) Oscilloscope 1 or 2 phenomena, band width over 100 MHz, with delay mode
3) Frequency counter (over 8 digits)
4) Digital voltmeter
5) Standard commander
   * RM-SS450 (1-477-335-11)
6) DVD reference disc
   HLX-501 (J-6090-071-A) (dual layer)
   HLX-503 (J-6090-069-A) (single layer)
   HLX-504 (J-6090-088-A) (single layer)
   HLX-505 (J-6090-089-A) (dual layer)
7) SACD reference disc
   HLXA-509 (J-6090-090-A)

* Use only the designated remote control when adjusting this system component.

Adjustment Of Video System

1. Video Level Adjustment (DVD BOARD)

<Purpose>

This adjustment is made to satisfy the NTSC standard, and if not adjusted correctly, the brightness will be too large or small.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	MONITOR OUT (VIDEO) connector (75 Ω terminated)
Instrument	Oscilloscope
Adjusting element	RV501
Specification	1.0 ± 0.02 Vp-p

Adjusting method:

1) In the test mode initial menu “6” Video Level Adjustment, set so that color bars are generated.
2) Adjust the RV501 to attain 1.0 ± 0.02 Vp-p.

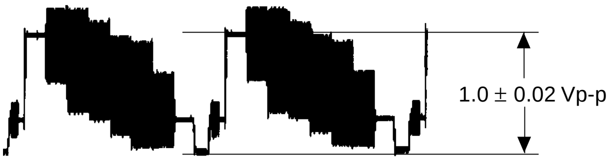


Figure 5-1

2. S-terminal Output Check

<Purpose>

Check S-terminal video output. If it is incorrect, pictures will not be displayed correctly in spite of connection to the TV with a S-terminal cable.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	S VIDEO OUT (S-Y) connector (75 Ω terminated)
Instrument	Oscilloscope
Specification	1.0 ± 0.1 Vp-p

Checking method:

1) In the test mode initial menu “6” Video Level Adjustment, set so that color bars are generated.
2) Confirm that the S-Y level is 1.0 ± 0.1 Vp-p.

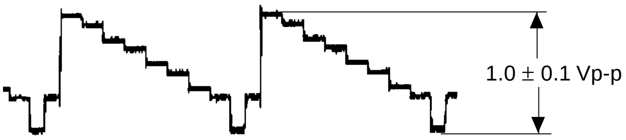


Figure 5-2

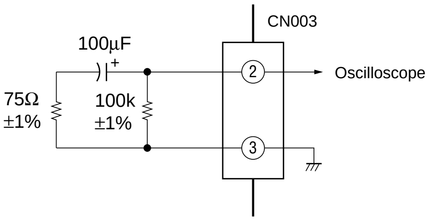
3. Checking S Video Output S-C (DVD BOARD)

<Purpose>

This checks whether the S-C satisfies the NTSC Standard. If it is not correct, the colors will be too dark or light.

Mode	Video level adjustment in test mode
Signal	Color bars
Test point	CN003 pin ②
Instrument	Oscilloscope
Specification	286 ± 50 mVp-p

Connection:


CN003
100µF
+
75Ω
±1%
100k
±1%
2
3
Oscilloscope

Checking method:

1) Confirm that the S-C burst is 286 ± 50 mVp-p.

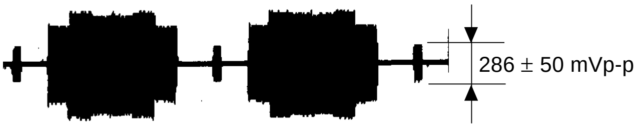
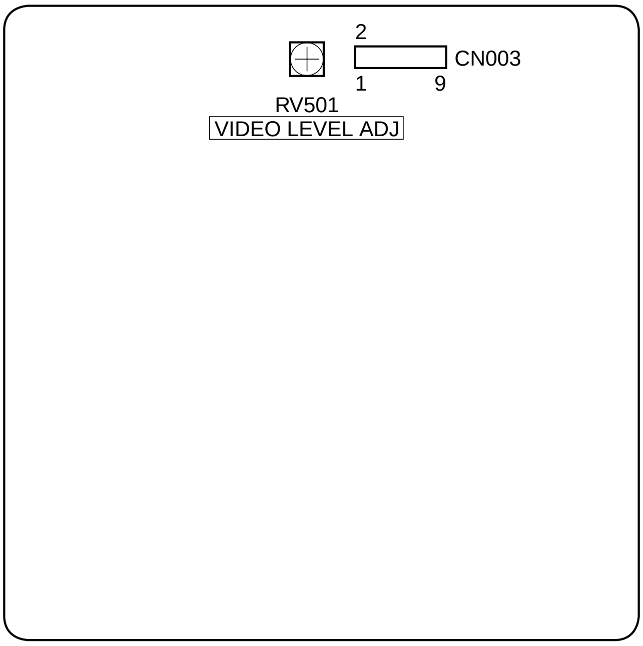


Figure 5-3

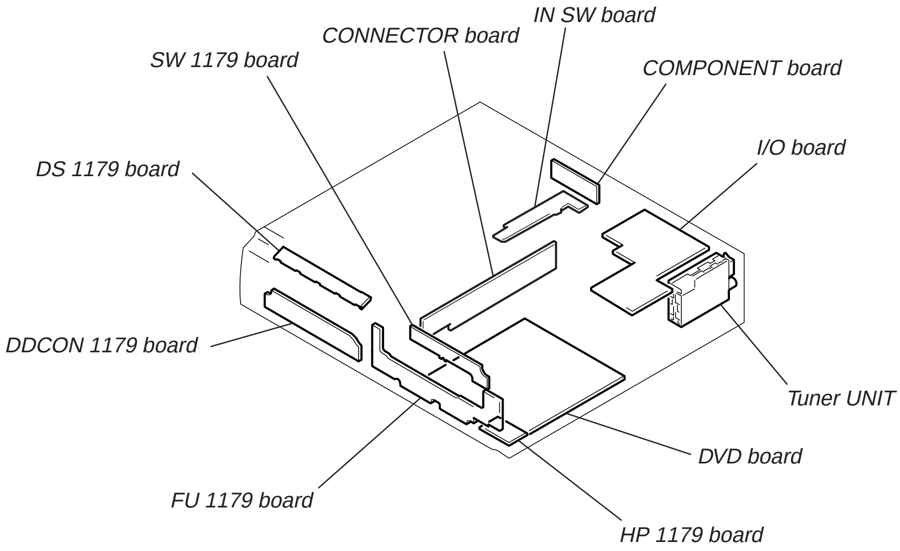
Adjustment Related Parts Arrangement

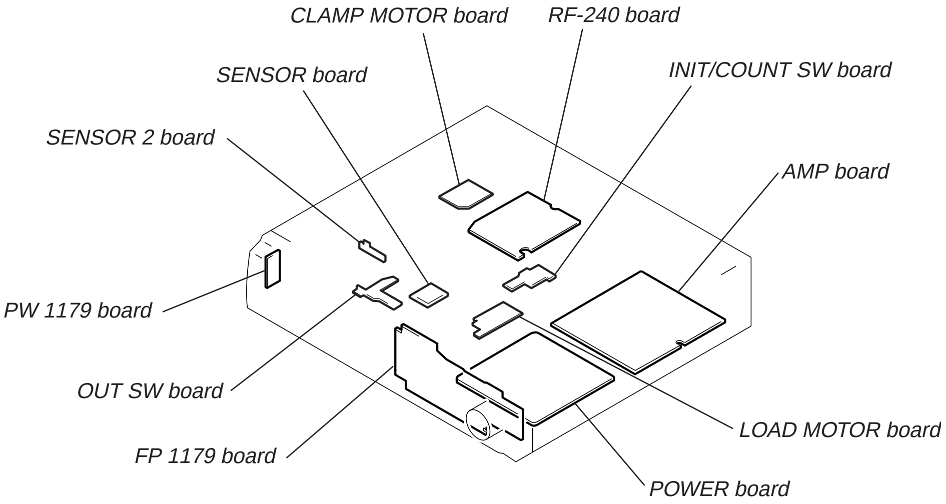
DVD BOARD (SIDE A)


2
CN003
1
9
RV501
VIDEO LEVEL ADJ

SECTION 5
DIAGRAMS

• Circuit Boards Location


IN SW board
CONNECTOR board
SW 1179 board
COMPONENT board
I/O board
DS 1179 board
DDCON 1179 board
Tuner UNIT
DVD board
FU 1179 board
HP 1179 board


CLAMP MOTOR board
RF-240 board
SENSOR board
INIT/COUNT SW board
SENSOR 2 board
AMP board
PW 1179 board
OUT SW board
LOAD MOTOR board
FP 1179 board
POWER board

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For schematic diagrams.
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^1/_4$ W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	**Note:** Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ━━ : B+ Line.
- ╍╍ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages and waveforms are dc with respect to ground in service mode.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
  no mark : STOP
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : FM
  - ⇨ : CD
  - ⇨ : DVD
  - ⇨ : VIDEO
  - ▷ : Y
  - ▷ : CHROMA
  - ▷ : B-Y
  - ▷ : R-Y
- Abbreviation

AUS	: Australian model
CND	: Canadian model
E12	: 220V-240V AC in E model
E32	: 110V-240V AC (without VS) in E model
EA	: Saudi Arabia model
MX	: Mexican model
SP	: Singapore model

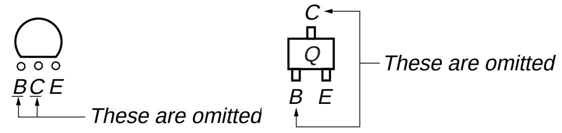
For printed wiring boards.
Note:

- ○─── : parts extracted from the component side.
- ○ : Through hole.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

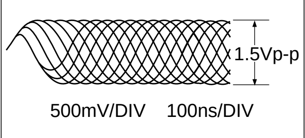
Caution:	
Pattern face side: (Conductor B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component A)	Parts on the parts face side seen from the parts face are indicated.

- **Indication of transistor**

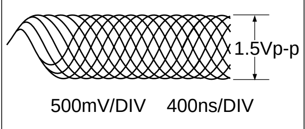


- **Waveforms**

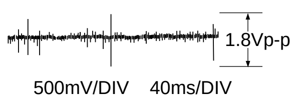
– RF-240 Board –

①


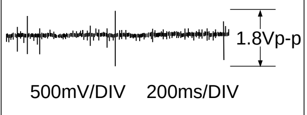
IC001 (59) (SIGO) DVD PLAY

②


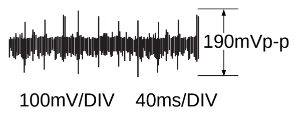
IC001 (59) (SIGO) CD PLAY

③


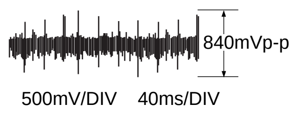
IC001 ㊶ (TE) DVD PLAY

④


IC001 ㊶ (TE) CD PLAY

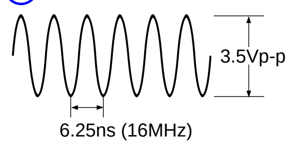
⑤


IC001 ㊷ (FE) DVD PLAY

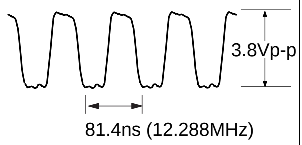
⑥


IC001 ㊷ (FE) CD PLAY

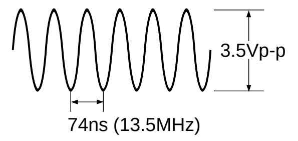
– DVD Board –

⑦


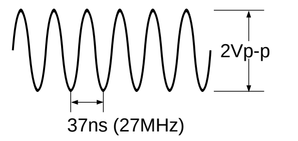
IC901 ㊳ (X2)

⑧


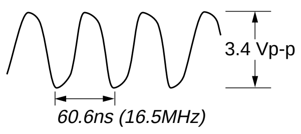
IC606 ⑳ (XMCK)

⑨


IC607 ⑫ (MCLK2)

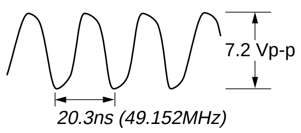
⑩


IC102 ⑦ (XTI)

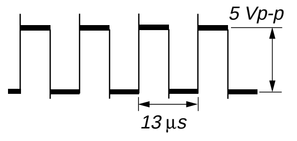
⑪


IC103 (53) (X1)

– AMP Board –

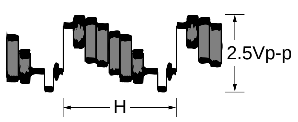
⑫


IC300 ④

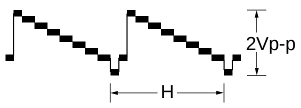
⑬


IC305 ㉔ (OUTL1+)

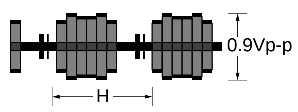
– I/O BOARD –

⑭


IC701 ⑭, ⑮ Test Mode (Video)

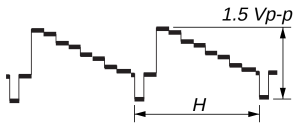
⑮


IC701 ⑨, ⑩ Test Mode (Video)

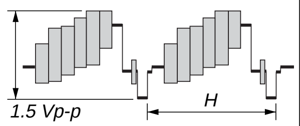
⑯


Q700 Ⓔ Test Mode (Video)

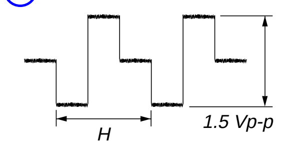
– COMPONENT Board –

⑰


IC703 ⑨, ⑩ Test Mode (Video)

⑱


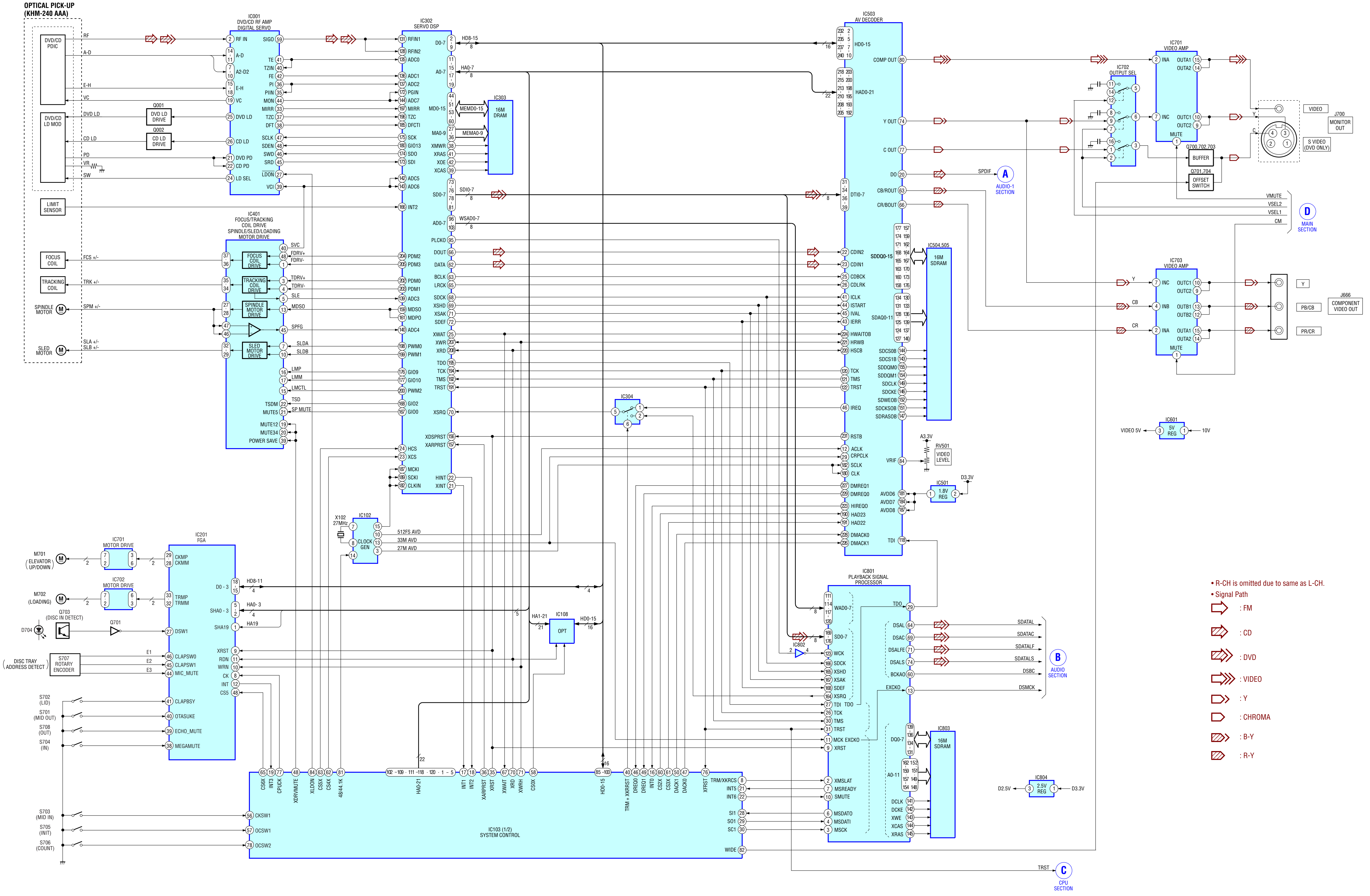
IC703 ⑫, ⑬ Test Mode (Video)

⑲


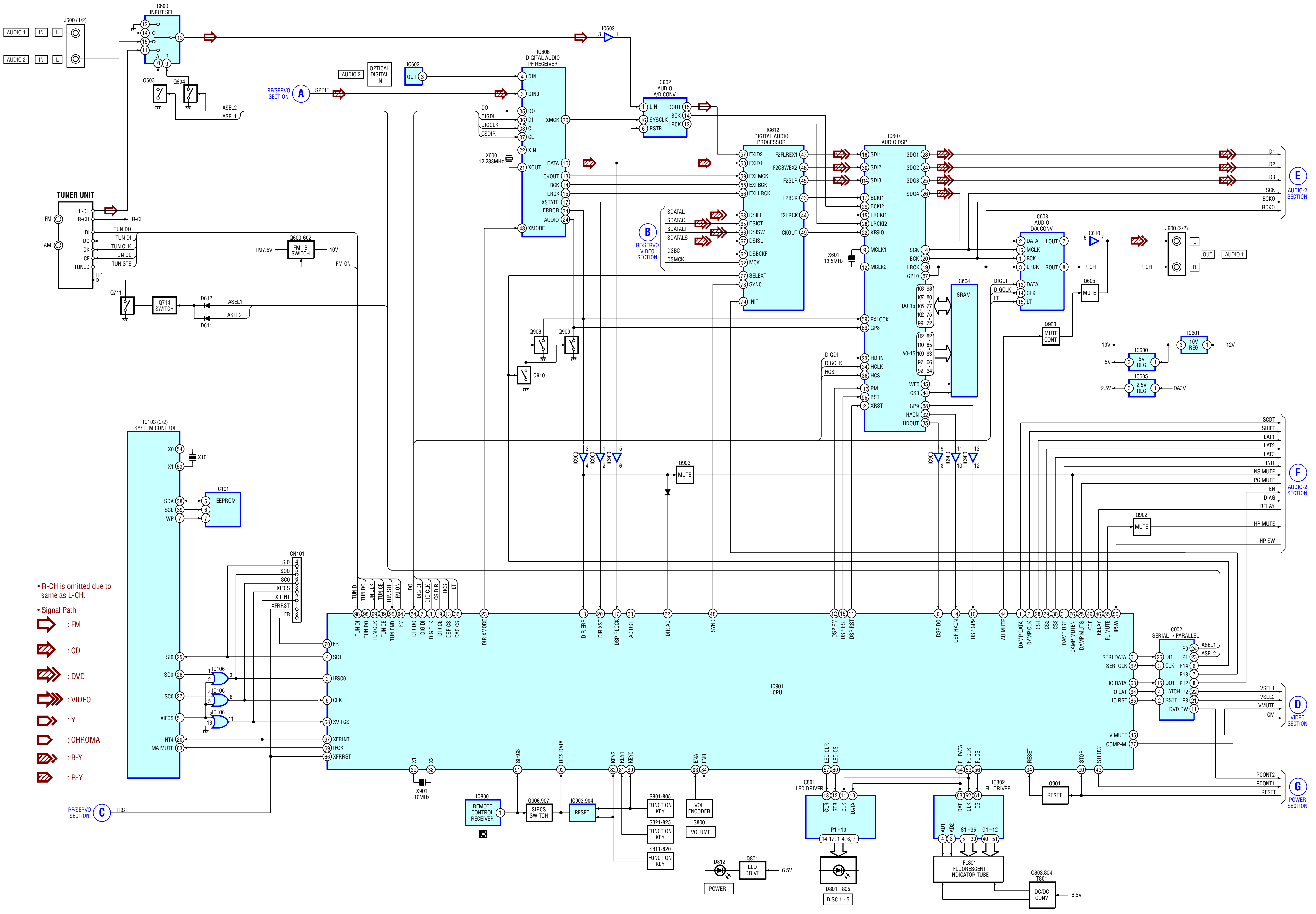
IC703 ⑭, ⑮ Test Mode (Video)

5-1. Block Diagrams

– RF/Servo, Video Section –


OPTICAL PICK-UP (KHM-240 AAA)
DVD/CD PDIC
DVD/CD LD MOD
LIMIT SENSOR
FOCUS COIL
TRACKING COIL
SPINDLE MOTOR
SLED MOTOR
Q001 DVD LD DRIVE
Q002 CD LD DRIVE
IC001 DVD/CD RF AMP DIGITAL SERVO
IC401 FOCUS/TRACKING COIL DRIVE SPINDLE/SLED/LOADING MOTOR DRIVE
IC302 SERVO DSP
IC303 16M DRAM
IC503 AV DECODER
IC504,505 16M SDRAM
IC701 VIDEO AMP
IC702 OUTPUT SEL
IC703 VIDEO AMP
Q700,702,703 BUFFER
Q701,704 OFFSET SWITCH
J700 MONITOR OUT
VIDEO
S VIDEO (DVD ONLY)
J666 COMPONENT VIDEO OUT
Y
PB/CB
PR/CR
IC304
IC601 5V REG
VIDEO 5V
10V
RV501 VIDEO LEVEL
IC501 1.8V REG
D3.3V
IC102 CLOCK GEN
X102 27MHz
512FS AVD
33M AVD
27M AVD
IC201 FGA
IC701 MOTOR DRIVE
IC702 MOTOR DRIVE
M701 (ELEVATOR UP/DOWN)
M702 (LOADING)
Q703 (DISC IN DETECT)
D704
Q701
S707 ROTARY ENCODER
DISC TRAY ADDRESS DETECT
S702 (LID)
S701 (MID OUT)
S708 (OUT)
S704 (IN)
S703 (MID IN)
S705 (INIT)
S706 (COUNT)
IC108 OPT
IC802
IC801 PLAYBACK SIGNAL PROCESSOR
IC803 16M SDRAM
IC804 2.5V REG
D2.5V
D3.3V
IC103 (1/2) SYSTEM CONTROL
A AUDIO-1 SECTION
B AUDIO SECTION
C CPU SECTION
D MAIN SECTION
SPDIF
VMUTE
VSEL2
VSEL1
CM
SDATAL
SDATAC
SDATALF
SDATALS
DSBC
DSMCK
TRST
• R-CH is omitted due to same as L-CH.
• Signal Path
: FM
: CD
: DVD
: VIDEO
: Y
: CHROMA
: B-Y
: R-Y

– CPU Section –


IC600
INPUT SEL
J600 (1/2)
AUDIO 1
IN
L
AUDIO 2
IN
L
Q603
Q604
ASEL2
ASEL1
IC603
IC602
OPTICAL
DIGITAL
IN
AUDIO 2
OUT
RF/SERVO
SECTION
A
SPDIF
IC606
DIGITAL AUDIO
I/F RECEIVER
DIN1
DIN0
DO
DI
CL
CE
DIGDI
DIGCLK
CSDIR
XIN
XOUT
XMCK
X600
12.288MHz
DATA
CKOUT
BCK
LRCK
XSTATE
ERROR
AUDIO
XMODE
IC602
AUDIO
A/D CONV
LIN
SYSCLK
RSTB
DOUT
BCK
LRCK
IC612
DIGITAL AUDIO
PROCESSOR
EXID2
EXID1
EXI MCK
EXI BCK
EXI LRCK
DSIFL
DSICT
DSISW
DSISL
DSBCKF
MCK
SELEXT
SYNC
INIT
F2FLREX1
F2CSWEX2
F2SLR
F2BCK
F2LRCK
CKOUT
SDATAL
SDATAC
SDATALF
SDATALS
DSBC
DSMCK
B
RF/SERVO
VIDEO
SECTION
IC607
AUDIO DSP
SDI1
SDI2
SDI3
BCKI1
BCKI2
LRCKI1
LRCKI2
KFSIO
MCLK1
MCLK2
EXLOCK
GP8
HD IN
HCLK
HCS
PM
BST
XRST
SDO1
SDO2
SDO3
SDO4
SCK
BCK
LRCK
GP10
D0-15
A0-15
WE0
CS0
GP9
HACN
HDOUT
X601
13.5MHz
IC604
SRAM
DIGDI
DIGCLK
HCS
D1
D2
D3
SCK
BCKO
LRCKO
E
AUDIO-2
SECTION
IC608
AUDIO
D/A CONV
DATA
MCLK
BCK
LRCK
LOUT
ROUT
CLK
LT
IC610
R-CH
J600 (2/2)
L
R
OUT
AUDIO 1
Q605
MUTE
Q900
MUTE
CONT
IC601
10V
REG
12V
IC600
5V
REG
IC605
2.5V
REG
DA3V
TUNER UNIT
FM
AM
L-CH
R-CH
DI
DO
CK
CE
TUNED
TP1
TUN DO
TUN DI
TUN CLK
TUN CE
TUN STE
Q600-602
FM +B
SWITCH
FM7.5V
10V
FM ON
Q711
Q714
SWITCH
D612
D611
Q908
Q909
Q910
IC900
Q903
MUTE
SCDT
SHIFT
LAT1
LAT2
LAT3
INIT
NS MUTE
PG MUTE
EN
DIAG
RELAY
Q902
MUTE
HP MUTE
HP SW
F
AUDIO-2
SECTION
IC103 (2/2)
SYSTEM CONTROL
X0
X1
X101
IC101
EEPROM
SDA
SCL
WP
CN101
SIO
SOO
SCO
XIFCS
XIFINT
XFRRST
FR
SIO
SOO
SCO
XIFCS
INT4
MA MUTE
IC106
IC901
CPU
FR
SDI
IFSCO
CLK
XVIFCS
XFRINT
IFOK
XFRRST
TUN DI
TUN DO
TUN CLK
TUN CE
TUN END
FM
DIR DO
DIG DI
DIG CLK
DIR CE
DSP CS
DAC CS
DIR XMODE
DIR ERR
DIR XST
DSP PLOCK
AD RST
DIR AD
SYNC
DSP PM
DSP BST
DSP RST
DSP DO
DSP HACN
DSP GP9
AU MUTE
DAMP DATA
DAMP CLK
CS1
CS2
CS3
DAMP RST
DAMP MUTEN
DAMP MUTG
OCP
RELAY
FL MUTE
HPSW
SERI DATA
SERI CLK
IO DATA
IO LAT
IO RST
V MUTE
COMP-M
IC902
SERIAL → PARALLEL
ASEL1
ASEL2
VSEL1
VSEL2
VMUTE
CM
D
VIDEO
SECTION
X1
X2
X901
16MHz
SIRCS
RDS DATA
KEY2
KEY1
KEY0
ENA
ENB
LED-CLR
LED-CS
FL DATA
FL CLK
FL CS
RESET
STOP
STPOW
PCONT2
PCONT1
RESET
G
POWER
SECTION
IC800
REMOTE
CONTROL
RECEIVER
Q906,907
SIRCS
SWITCH
IC903,904
RESET
S801-805
FUNCTION
KEY
S821-825
FUNCTION
KEY
S811-820
FUNCTION
KEY
S800
VOL
ENCODER
VOLUME
IC801
LED DRIVER
CLR
STB
CLK
DATA
P1-10
14-17, 1-4, 6, 7
D801 - 805
DISC 1 - 5
D812
POWER
Q801
LED
DRIVE
6.5V
IC802
FL DRIVER
DAT
CLK
CS
AD1
AD2
S1-35
G1-12
FL801
FLUORESCENT
INDICATOR TUBE
Q803,804
T801
DC/DC
CONV
6.5V
Q901
RESET
RF/SERVO
SECTION
C
TRST

- R-CH is omitted due to same as L-CH.
- Signal Path

: FM

: CD

: DVD

: VIDEO

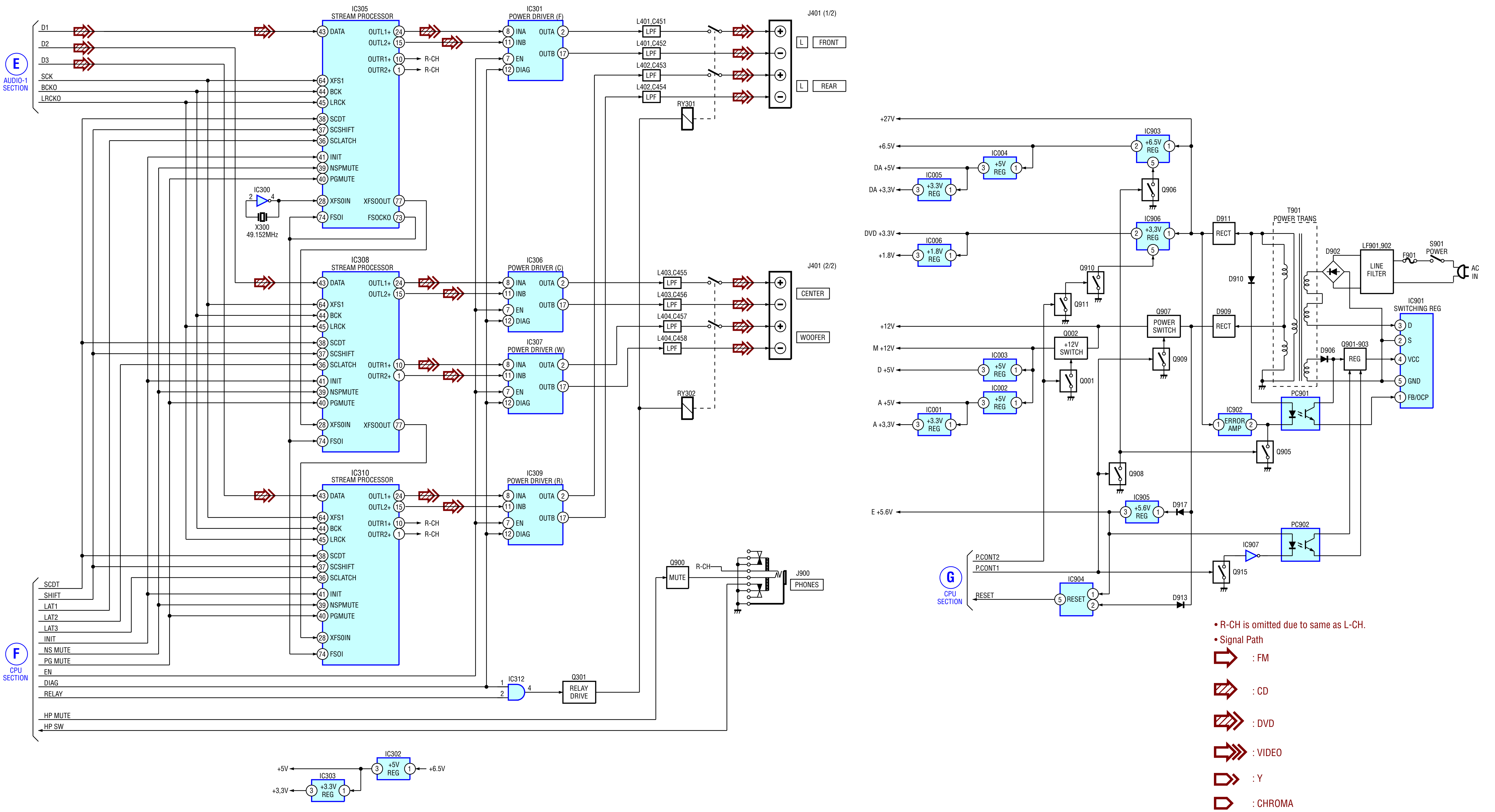
: Y

: CHROMA

: B-Y

: R-Y

– Power Section –


E
AUDIO-1 SECTION
D1
D2
D3
SCK
BCKO
LRCKO
IC305
STREAM PROCESSOR
43 DATA
64 XFS1
44 BCK
45 LRCK
38 SCDT
37 SCSHIFT
36 SCLATCH
41 INIT
39 NSPMUTE
40 PGMUTE
28 XFSOIN
74 FSOI
OUTL1+ 24
OUTL2+ 15
OUTR1+ 10
OUTR2+ 1
XFSOOUT 77
FSOCKO 73
R-CH
IC300
X300
49.152MHz
IC301
POWER DRIVER (F)
8 INA
11 INB
7 EN
12 DIAG
OUTA 2
OUTB 17
L401,C451
L401,C452
L402,C453
L402,C454
LPF
RY301
J401 (1/2)
L
FRONT
REAR
IC308
STREAM PROCESSOR
IC306
POWER DRIVER (C)
IC307
POWER DRIVER (W)
L403,C455
L403,C456
L404,C457
L404,C458
J401 (2/2)
CENTER
WOOFER
RY302
IC310
STREAM PROCESSOR
IC309
POWER DRIVER (R)
Q900
MUTE
R-CH
J900
PHONES
F
CPU SECTION
SCDT
SHIFT
LAT1
LAT2
LAT3
INIT
NS MUTE
PG MUTE
EN
DIAG
RELAY
HP MUTE
HP SW
IC312
Q301
RELAY DRIVE
IC302
+5V REG
+5V
+6.5V
IC303
+3.3V REG
+3,3V
+27V
+6.5V
DA +5V
DA +3,3V
IC903
+6.5V REG
IC004
+5V REG
IC005
+3.3V REG
Q906
DVD +3.3V
+1.8V
IC906
+3.3V REG
IC006
+1.8V REG
D911
RECT
T901
POWER TRANS
D902
LF901,902
LINE FILTER
F901
S901
POWER
AC IN
Q910
D910
Q911
+12V
M +12V
D +5V
Q907
POWER SWITCH
Q002
+12V SWITCH
D909
RECT
IC901
SWITCHING REG
3 D
2 S
4 VCC
5 GND
1 FB/OCP
Q901-903
REG
D906
IC003
+5V REG
Q909
Q001
A +5V
A +3.3V
IC002
+5V REG
IC001
+3.3V REG
PC901
IC902
ERROR AMP
Q905
Q908
E +5.6V
IC905
+5.6V REG
D917
PC902
IC907
Q915
G
CPU SECTION
P.CONT2
P.CONT1
RESET
IC904
RESET
D913

• R-CH is omitted due to same as L-CH.

• Signal Path

⇨ : FM

⇨ : CD

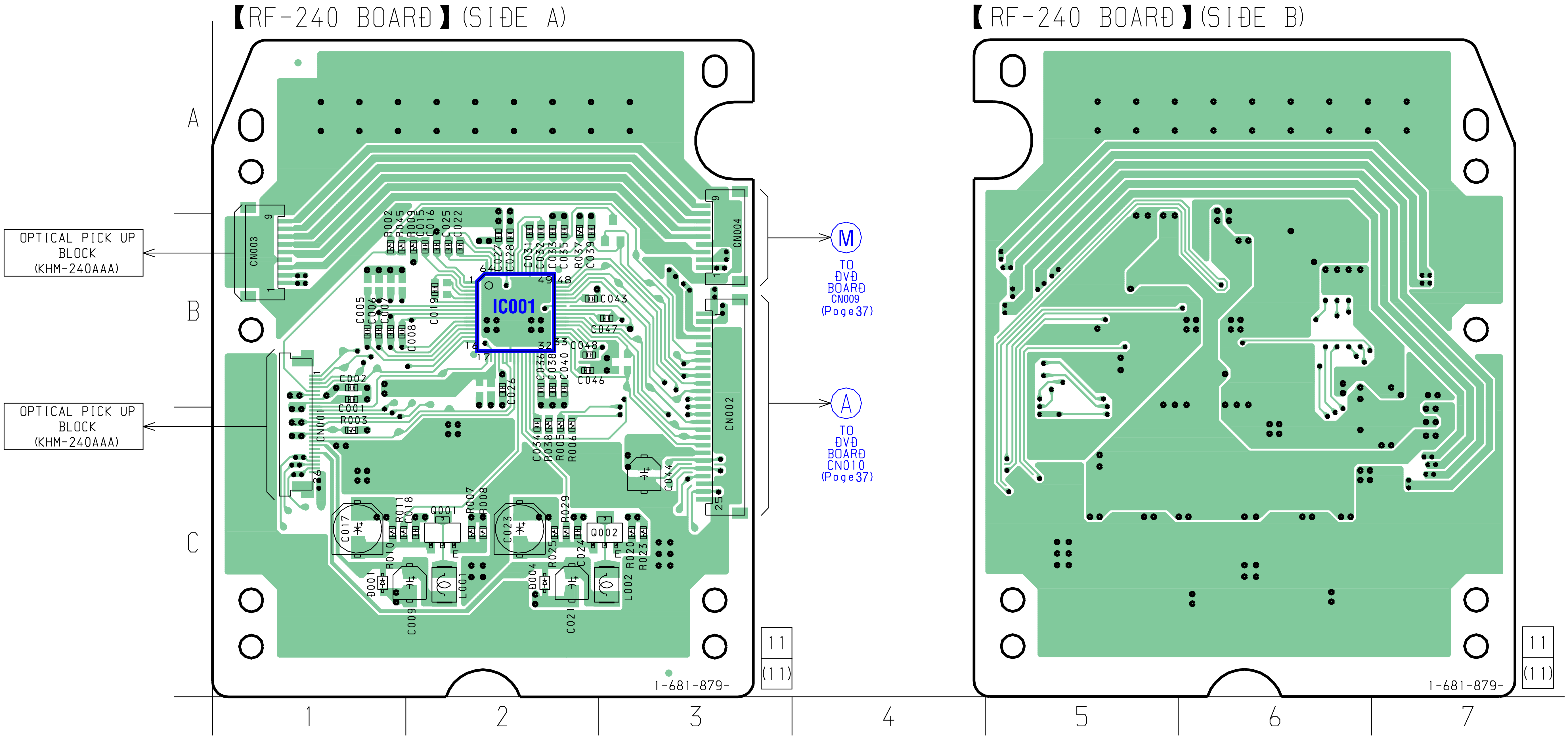
⇨ : DVD

⇨ : VIDEO

⇨ : Y

⇨ : CHROMA

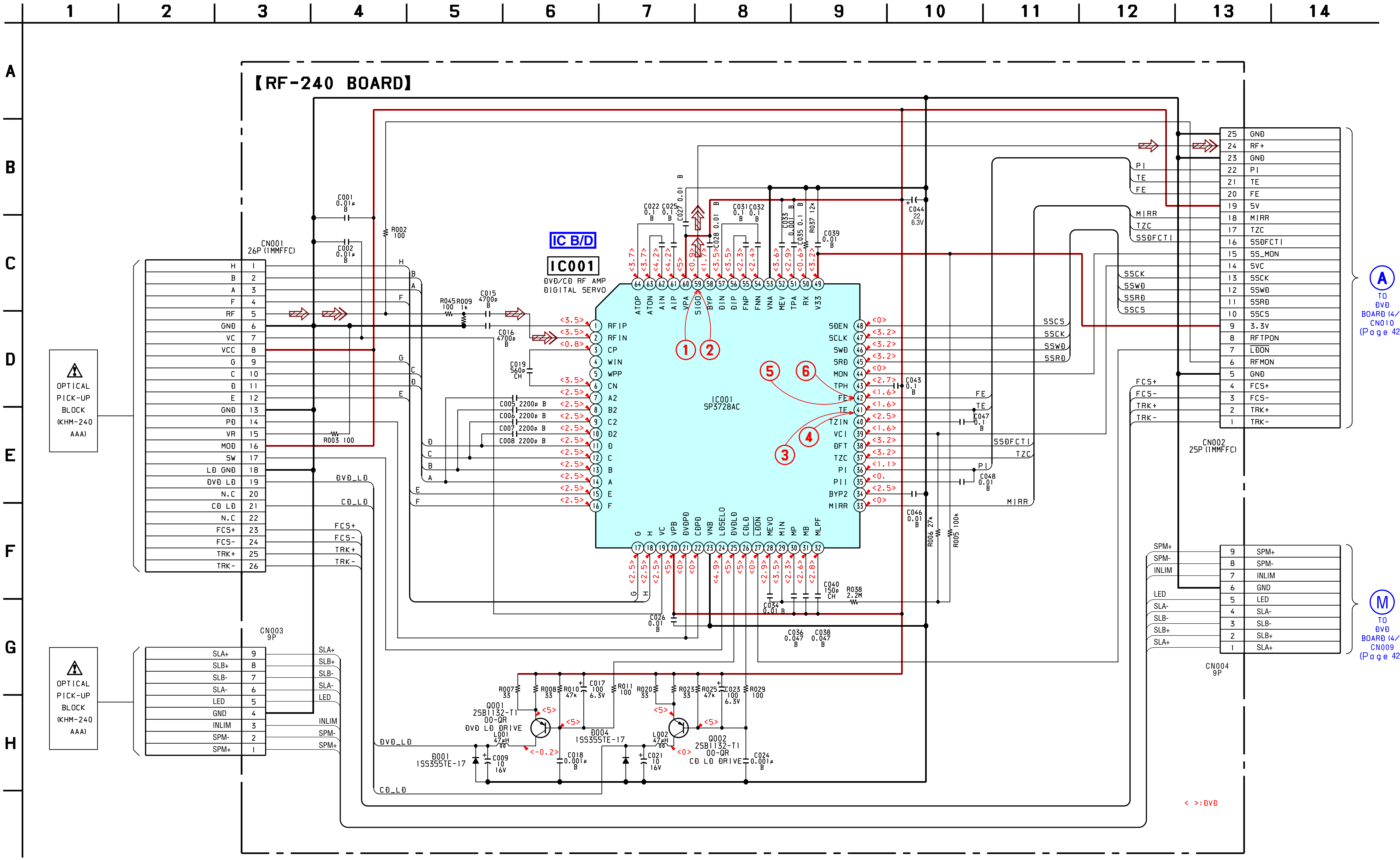
5-2. Printed Wiring Board – RF Board – • See page 30 for Circuit Boards Location.


【RF-240 BOARD】(SIDE A)
【RF-240 BOARD】(SIDE B)
OPTICAL PICK UP BLOCK (KHM-240AAA)
OPTICAL PICK UP BLOCK (KHM-240AAA)
M
TO DVD BOARD CN009 (Page37)
A
TO DVD BOARD CN010 (Page37)
IC001
CN001
CN002
CN003
CN004
Q001
Q002
D001
D004
L001
L002
1-681-879-
11
(11)
A
B
C
1
2
3
4
5
6
7

• Semiconductor Location

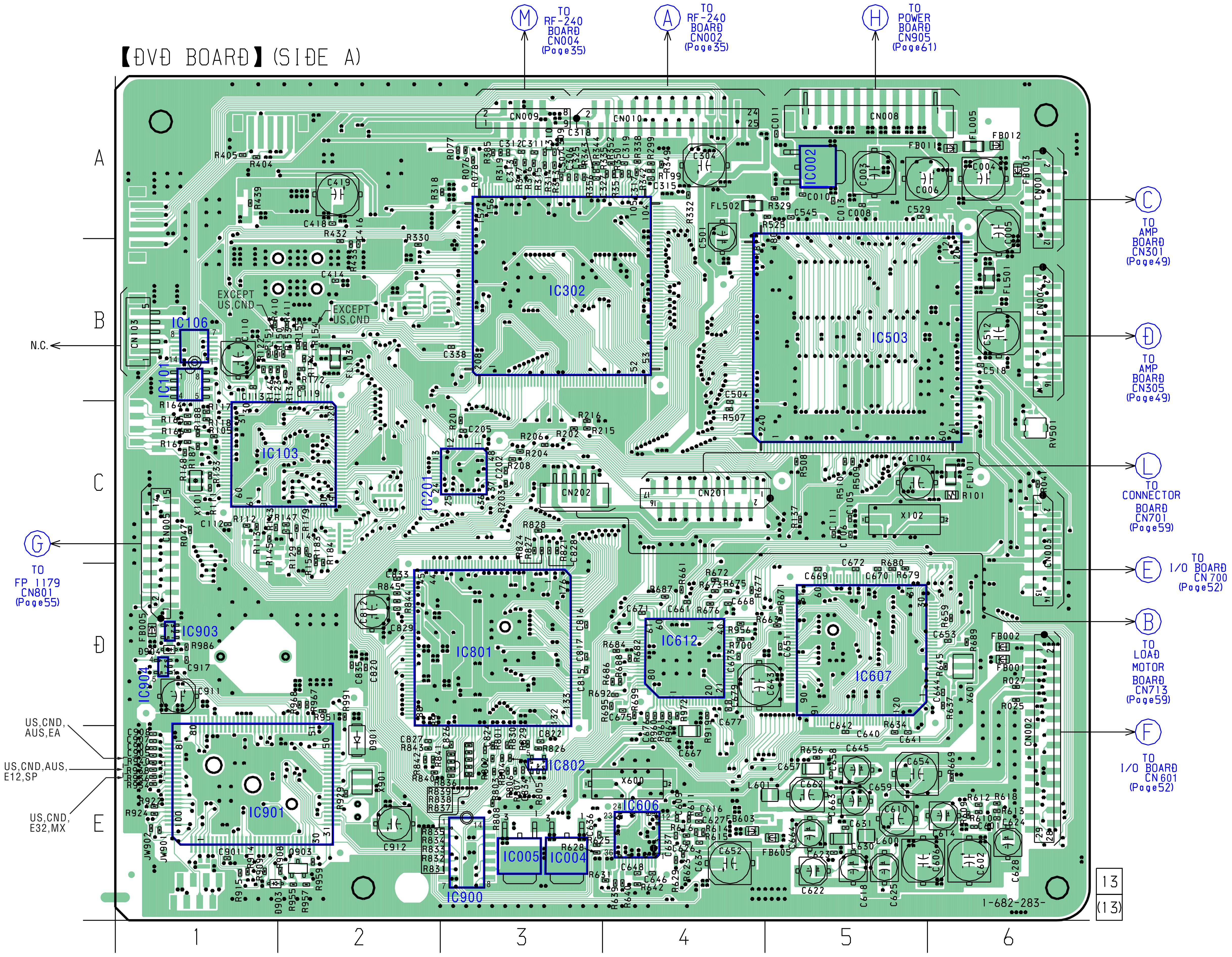
Ref. No.	Location
D001	C-1
D004	C-2
IC001	B-2
Q001	C-2
Q002	C-3

5-3. Schematic Diagram – RF Board – • See page 31 for Wavefoms. • See page 65 for IC Block Diagrams.



1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
【RF-240 BOARD】
IC B/D
IC001
DVD/CD RF AMP
DIGITAL SERVO
IC001
SP3728AC
CN001
26P (IMMFFC)
CN002
25P (IMMFFC)
CN003
9P
CN004
9P
OPTICAL
PICK-UP
BLOCK
(KHM-240
AAA)
OPTICAL
PICK-UP
BLOCK
(KHM-240
AAA)
A
TO
DVD
BOARD (4/9)
CN010
(Page 42)
M
TO
DVD
BOARD (4/9)
CN009
(Page 42)
Q001
2SB1132-T1
00-QR
DVD LD DRIVE
Q002
2SB1132-T1
00-QR
CD LD DRIVE
D001
1SS355TE-17
D004
1SS355TE-17
L001
47µH
L002
47µH
R002
100
R003 100
R045 R009
100 1k
R005 100k
R006 27k
R037 12k
R038
2.2M
R007
33
R008
33
R010
47k
R011
100
R020
33
R023
33
R025
47k
R029
100
C001
0.01µ
B
C002
0.01µ
B
C015
4700p
B
C016
4700p
B
C019
560p
CH
C005 2200p B
C006 2200p B
C007 2200p B
C008 2200p B
C017
100
6.3V
C023
100
6.3V
C009
10
16V
C021
10
16V
C018
0.001µ
B
C024
0.001µ
B
C026
0.01
B
C034
0.01 B
C036
0.047
B
C038
0.047
B
C040
150p
CH
C043
0.1
B
C044
22
6.3V
C046
0.01
B
C047
0.1
B
C048
0.01
B
C039
0.01
B
C022 C025
0.1 0.1
B B
C027 0.01 B
C028 0.01 B
C031 C032
0.1 0.1
B B
C033 0.001 B
C035 0.1 B
DVD_LD
CD_LD
RFIP
RFIN
CP
WIN
WPP
CN
A2
B2
C2
D2
D
C
B
A
E
F
SDEN
SCLK
SWD
SRD
MON
TPH
FE
TE
TZIN
VCI
DFT
TZC
PI
PII
BYP2
MIRR
ATOP
ATON
AIN
AIP
VPA
SIGO
BYP
DIN
DIP
FNP
FNN
VNA
MEV
TPA
RX
V33
G
H
VC
VPB
DVDPD
CDPD
VNB
LDSELO
DVDLD
CDLD
LDON
MEVO
MIN
MP
MB
MLPF
GND
RF+
PI
TE
FE
5V
MIRR
TZC
SSDFCTI
SS_MON
SVC
SSCK
SSWD
SSRD
SSCS
3.3V
RFTPON
LDON
RFMON
FCS+
FCS-
TRK+
TRK-
SPM+
SPM-
INLIM
LED
SLA-
SLB-
SLB+
SLA+
H
B
A
F
RF
VC
VCC
G
C
D
E
PD
VR
MOD
SW
LD GND
DVD LD
N.C
CD LD
①
②
③
④
⑤
⑥
< >:DVD

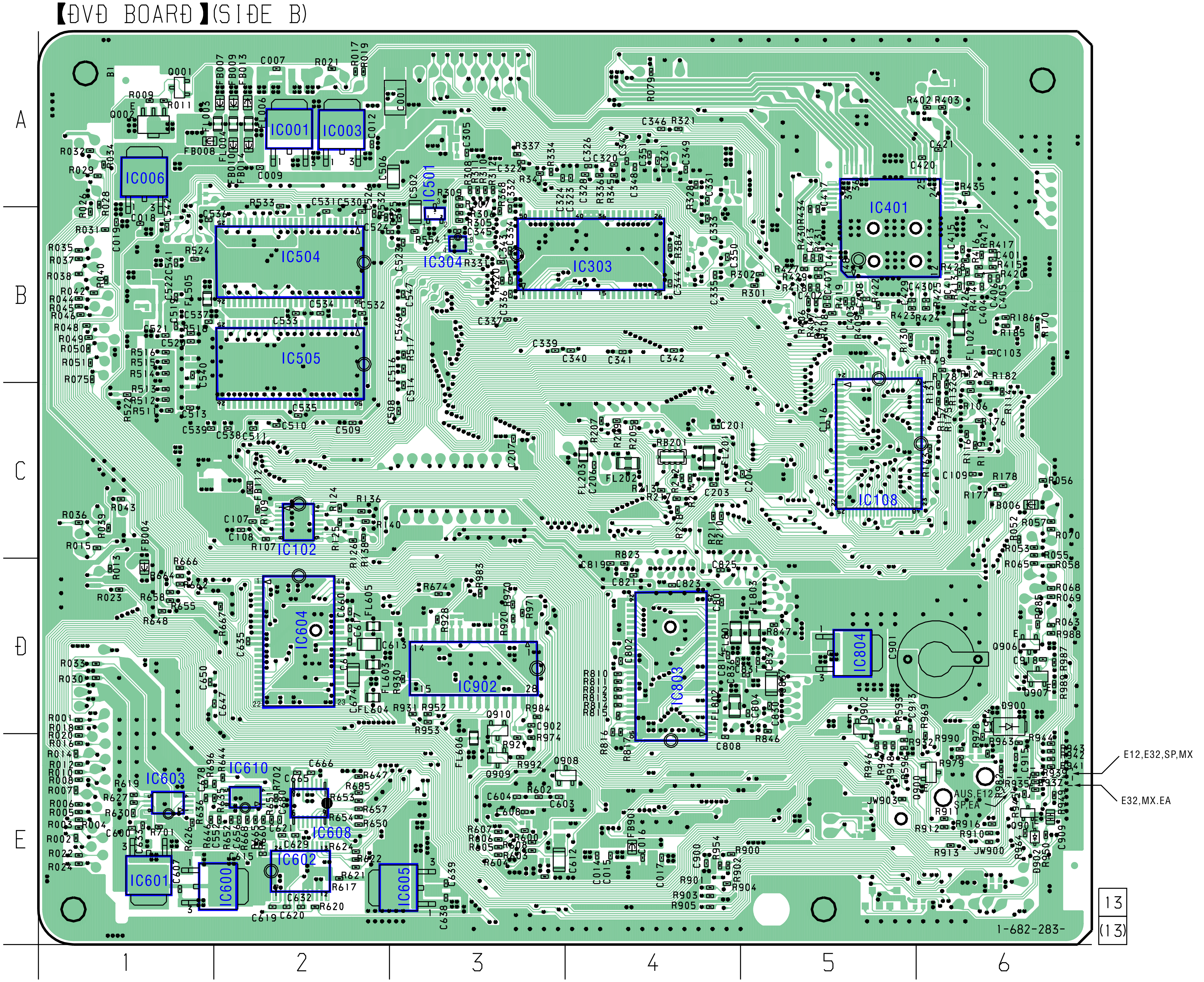
5-4. Printed Wiring Board – DVD Board (Side A) – • See page 30 for Circuit Boards Location.


【DVD BOARD】(SIDE A)
M TO RF-240 BOARD CN004 (Page35)
A TO RF-240 BOARD CN002 (Page35)
H TO POWER BOARD CN905 (Page61)
C TO AMP BOARD CN301 (Page49)
D TO AMP BOARD CN305 (Page49)
L TO CONNECTOR BOARD CN701 (Page59)
E TO I/O BOARD CN700 (Page52)
B TO LOAD MOTOR BOARD CN713 (Page59)
F TO I/O BOARD CN601 (Page52)
G TO FP 1179 CN801 (Page55)
N.C.
US,CND, AUS,EA
US,CND,AUS, E12,SP
US,CND, E32,MX
EXCEPT US,CND
EXCEPT US,CND
IC002
IC004
IC005
IC101
IC103
IC106
IC201
IC302
IC503
IC606
IC607
IC612
IC801
IC802
IC900
IC901
IC903
IC904
CN001
CN002
CN003
CN004
CN005
CN008
CN009
CN010
CN103
CN201
CN202
1-682-283-
13
(13)
A
B
C
D
E
1
2
3
4
5
6

• **Semiconductor Location**

Ref. No.	Location
D901	E-2
D903	E-1
D904	D-1
IC002	A-5
IC004	E-3
IC005	E-3
IC101	B-1
IC103	C-2
IC106	B-1
IC201	C-3
IC302	B-3
IC503	B-5
IC606	E-4
IC607	D-5
IC612	D-4
IC801	D-3
IC802	E-3
IC900	E-3
IC901	E-2
IC903	D-1
IC904	D-1
Q903	E-2

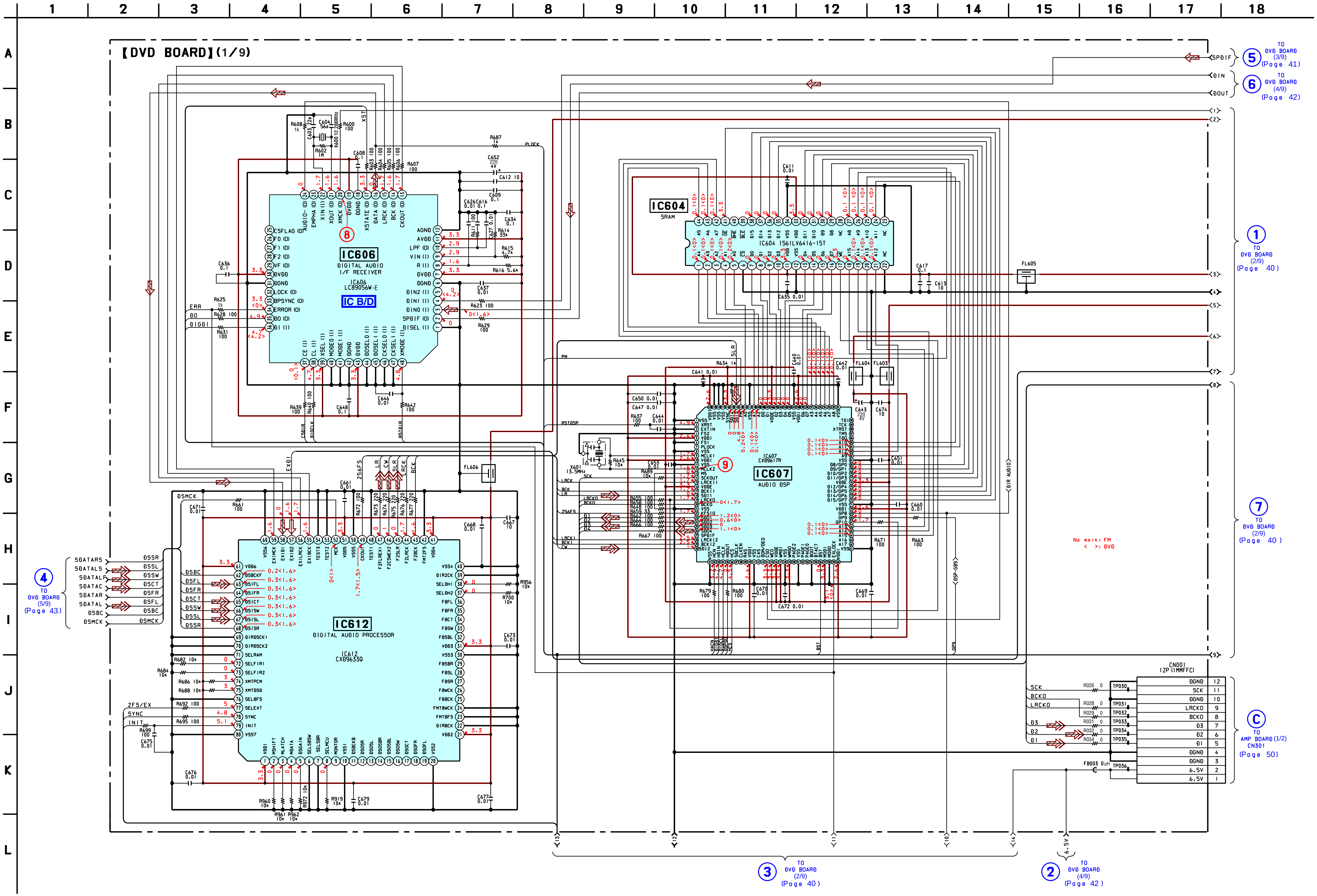
5-5. Printed Wiring Board – DVD Board (Side B) – • See page 30 for Circuit Boards Location.


[DVD BOARD] (SIDE B)
A
B
C
D
E
1
2
3
4
5
6
IC001
IC003
IC006
IC504
IC505
IC501
IC304
IC303
IC401
IC108
IC102
IC604
IC902
IC803
IC804
IC603
IC610
IC608
IC602
IC601
IC600
IC605
E12,E32,SP,MX
E32,MX.EA
1-682-283-
13
(13)

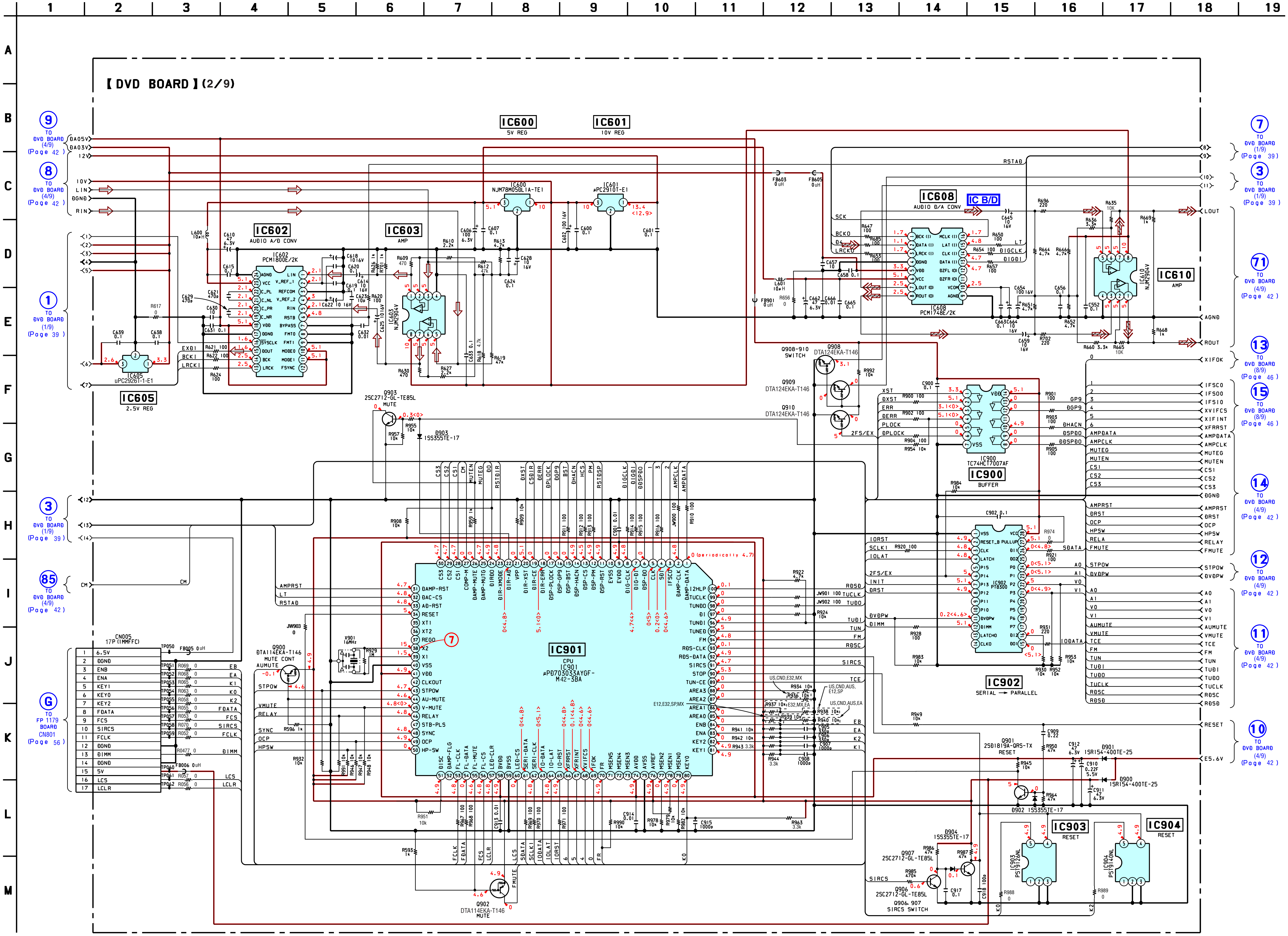
• **Semiconductor Location**

Ref. No.	Location
D900	D-6
D902	E-6
IC001	A-2
IC003	A-2
IC006	A-1
IC102	C-2
IC108	C-5
IC303	B-4
IC304	B-3
IC401	B-5
IC501	B-3
IC504	B-2
IC505	B-2
IC600	E-1
IC601	E-1
IC602	E-2
IC603	E-1
IC604	D-2
IC605	E-3
IC608	E-2
IC610	E-2
IC803	D-4
IC804	D-5
IC902	D-3
Q001	A-1
Q002	A-1
Q900	E-6
Q901	E-6
Q902	D-5
Q906	D-6
Q907	D-6

5-6. Schematic Diagram – DVD Board (1/9) – • See page 31 for Wavefoms. • See page 63 for IC Block Diagrams.

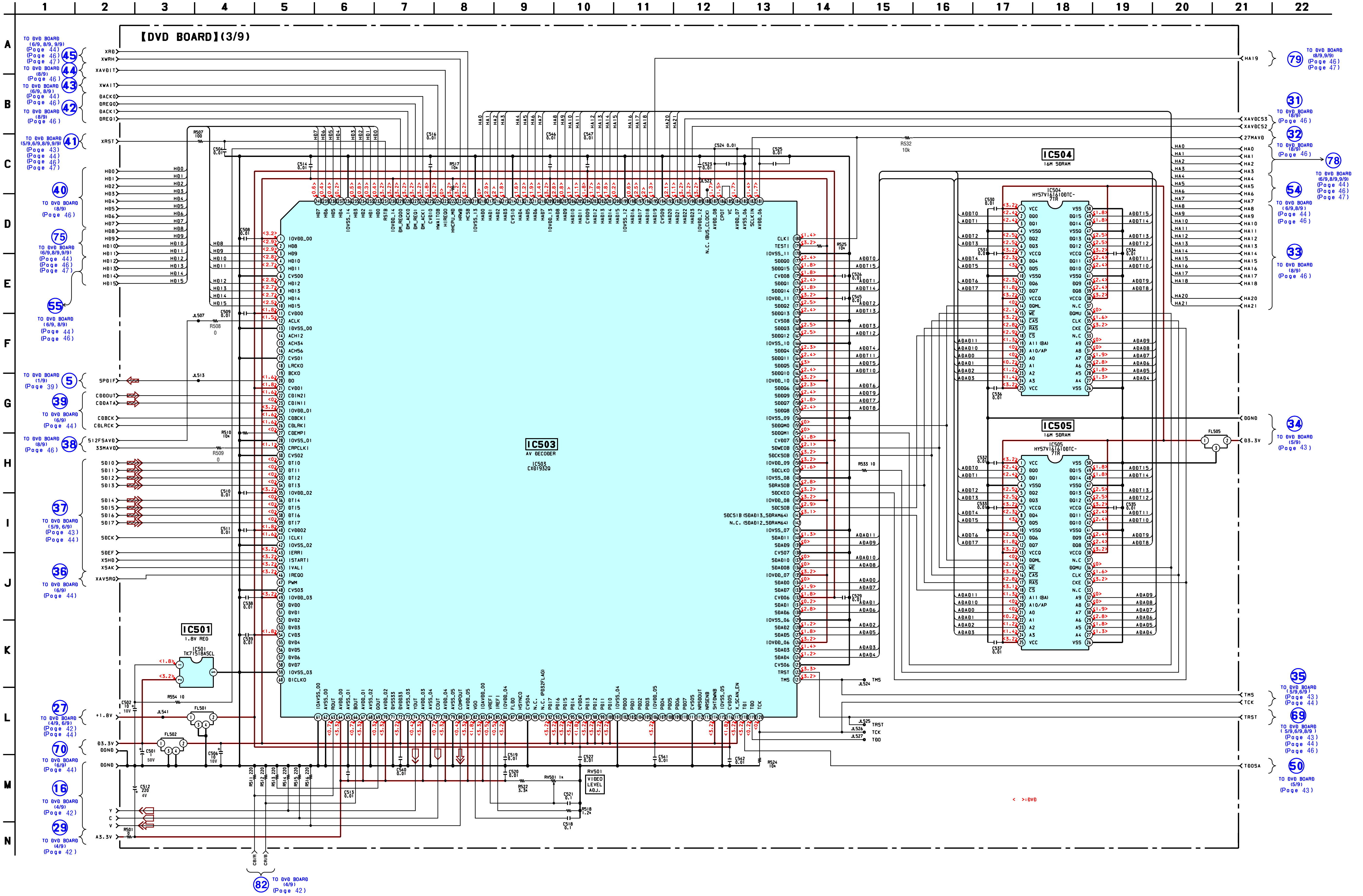

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
A
B
C
D
E
F
G
H
I
J
K
L
[DVD BOARD] (1/9)
IC606
DIGITAL AUDIO
I/F RECEIVER
IC606
LC89056W-E
IC B/D
8
IC604
SRAM
IC604 IS61LV6416-15T
IC607
CXD9617R
IC607
AUDIO DSP
9
IC612
DIGITAL AUDIO PROCESSOR
IC612
CXD9633Q
X601
13.5MHz
X600 12.288MHz
FL603
FL604
FL605
FL606
CN001
12P (IMMFFC)
SPDIF
DIN
DOUT
SCK
BCKO
LRCKO
D3
D2
D1
DGND
6.5V
TP030
TP031
TP032
TP033
TP034
TP035
TP036
FB003 0uH
5
TO DVD BOARD (3/9) (Page 41)
6
TO DVD BOARD (4/9) (Page 42)
1
TO DVD BOARD (2/9) (Page 40)
7
TO DVD BOARD (2/9) (Page 40)
C
TO AMP BOARD (1/2) CN301 (Page 50)
4
TO DVD BOARD (5/9) (Page 43)
3
TO DVD BOARD (2/9) (Page 40)
2
TO DVD BOARD (4/9) (Page 42)
SDATARS
SDATALS
SDATALF
SDATAC
SDATAR
SDATAL
DSBC
DSMCK
DSSR
DSSL
DSSW
DSCT
DSFR
DSFL
2FS/EX
SYNC
INIT
DIR AUDIO
DSP-OBS
No mark: FM
< >: DVD
6.5V

5-7. Schematic Diagram – DVD Board (2/9) – • See page 31 for Wavefoms. • See page 63 for IC Block Diagrams.

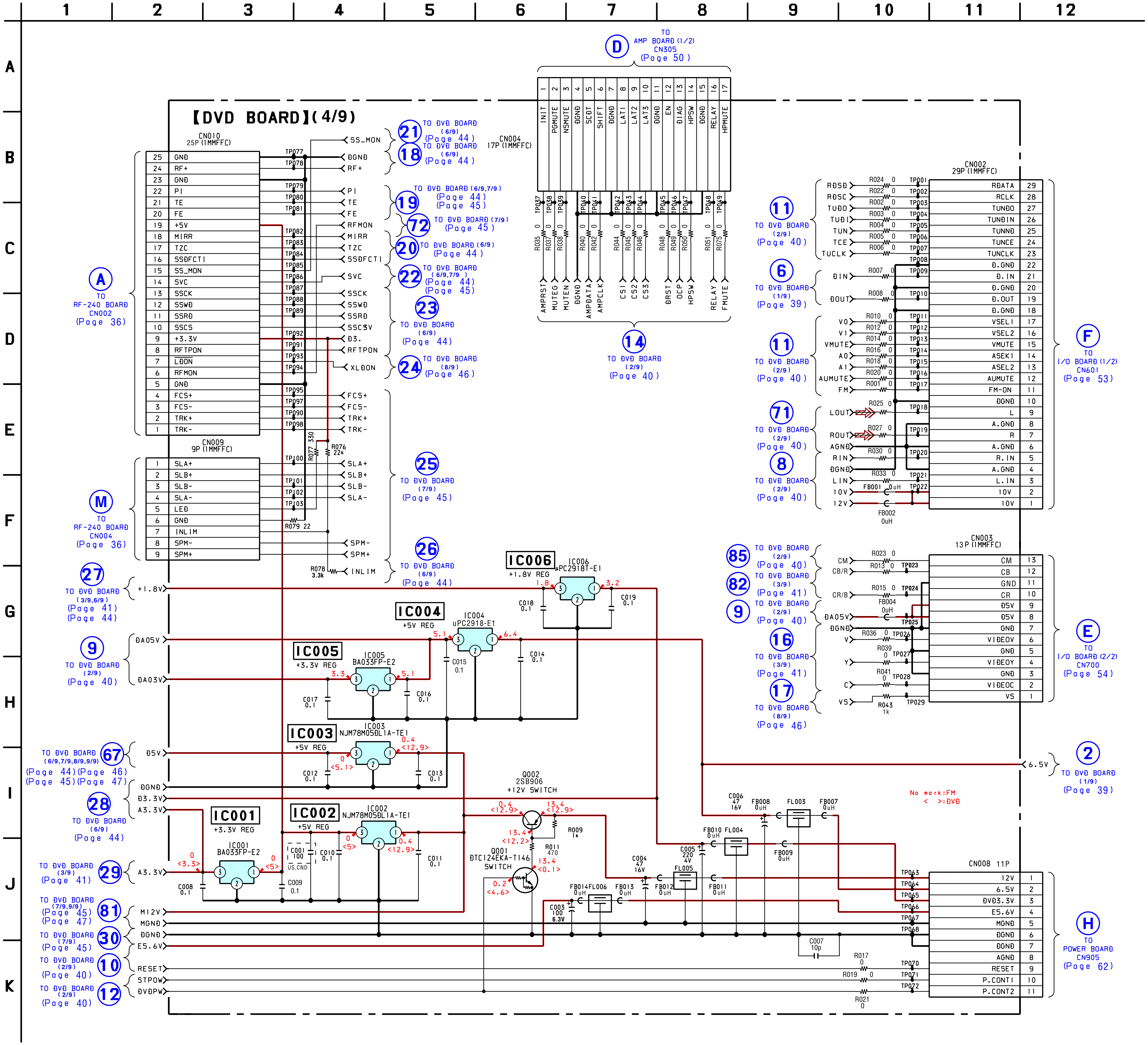


【DVD BOARD】(2/9)
IC600 5V REG
IC600 NJM78M05DL1A-TE1
IC601 10V REG
IC601 μPC29101-E1
IC602 AUDIO A/D CONV
IC602 PCM1800E/2K
IC603 AMP
IC603 NJM4580V
IC605 2.5V REG
IC605 uPC29261-1-E1
IC608 AUDIO D/A CONV
IC608 PCM1748E/2K
IC B/D
IC610 AMP
IC610 NJM2904V
IC900 BUFFER
IC900 TC74HCT7007AF
IC901 CPU
IC901 μPD703033AYGF-M42-3BA
IC902 SERIAL → PARALLEL
IC902 PT8300
IC903 RESET
IC903 PST9126NL
IC904 RESET
IC904 PST9140NL
Q900 DTA114EKA-T146 MUTE CONT
Q901 2SD1819A-QRS-TX RESET
Q902 DTA114EKA-T146 MUTE
Q903 2SC2712-GL-TE85L MUTE
Q906 2SC2712-GL-TE85L
Q906, 907 SIRCS SWITCH
Q907 2SC2712-GL-TE85L
Q908-910 SWITCH
Q908 DTA124EKA-T146
Q909 DTA124EKA-T146
Q910 DTA124EKA-T146
D900 1SR154-400TE-25
D901 1SR154-400TE-25
D902 1SS355TE-17
D903 1SS355TE-17
D904 1SS355TE-17
X901 16MHz
CN005 17P (IMMFC)
9 TO DVD BOARD (4/9) (Page 42)
8 TO DVD BOARD (4/9) (Page 42)
1 TO DVD BOARD (1/9) (Page 39)
3 TO DVD BOARD (1/9) (Page 39)
85 TO DVD BOARD (4/9) (Page 42)
G TO FP 1179 BOARD CN801 (Page 56)
7 TO DVD BOARD (1/9) (Page 39)
3 TO DVD BOARD (1/9) (Page 39)
71 TO DVD BOARD (4/9) (Page 42)
13 TO DVD BOARD (8/9) (Page 46)
15 TO DVD BOARD (8/9) (Page 46)
14 TO DVD BOARD (4/9) (Page 42)
12 TO DVD BOARD (4/9) (Page 42)
11 TO DVD BOARD (4/9) (Page 42)
10 TO DVD BOARD (4/9) (Page 42)
DA05V
DA03V
12V
10V
LIN
DGND
RIN
LOUT
AGND
ROUT
XIFOK
RESET
E5.6V

5-8. Schematic Diagram – DVD Board (3/9) –

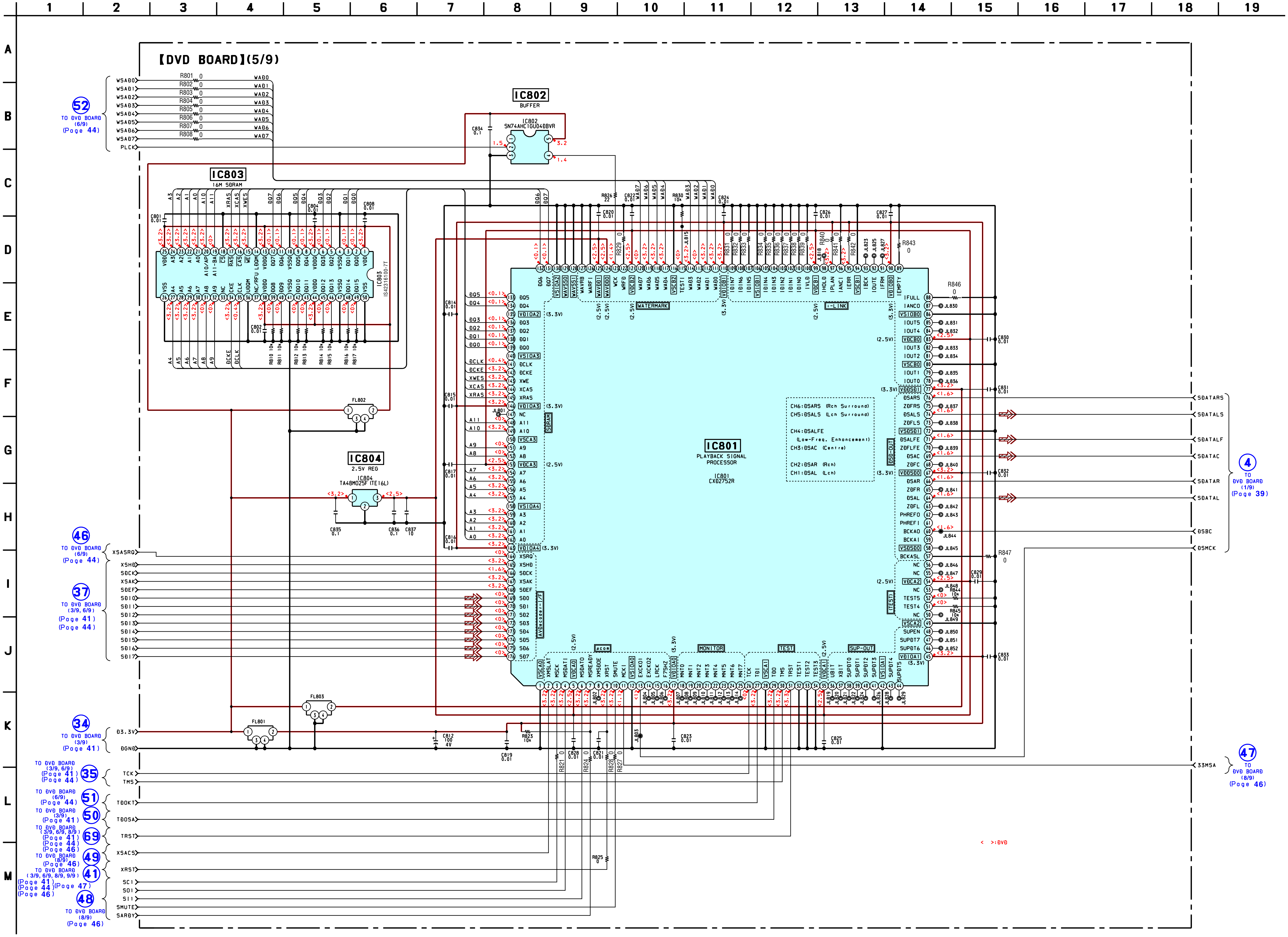

【DVD BOARD】(3/9)
IC501
1.8V REG
IC501
TK71518ASCL
IC503
AV DECODER
IC503
CXD1932Q
IC504
16M SDRAM
IC504
HY57V161610DTC-7IR
IC505
16M SDRAM
IC505
HY57V161610DTC-7IR
FL501
FL502
FL505
RV501
VIDEO LEVEL ADJ.
< >:DVD

5-9. Schematic Diagram – DVD Board (4/9) –

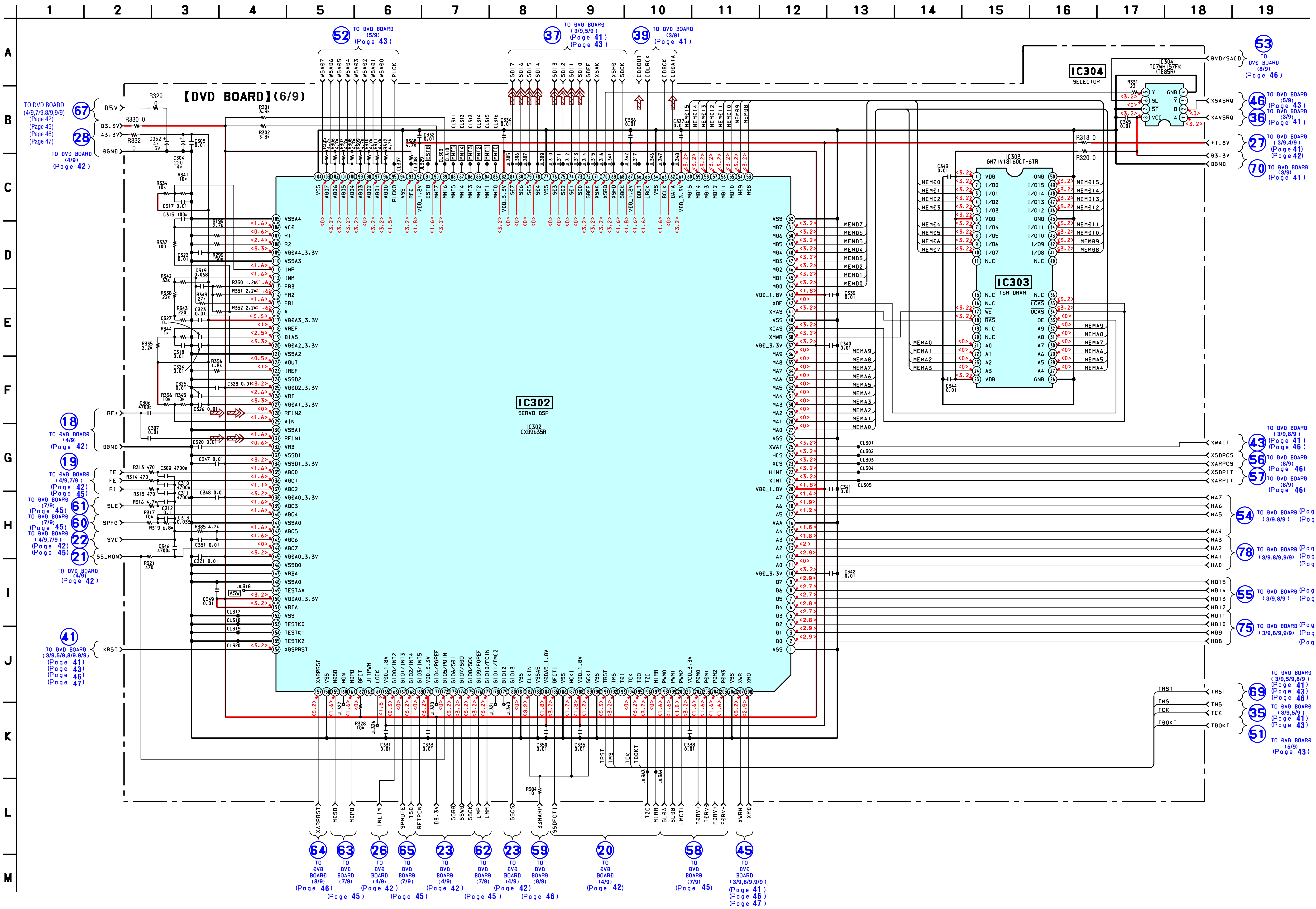

【DVD BOARD】(4/9)
CN010 25P (1MMFFC)
CN009 9P (1MMFFC)
CN004 17P (1MMFFC)
CN002 29P (1MMFFC)
CN003 13P (1MMFFC)
CN008 11P
IC006 +1.8V REG IC006 uPC2918T-E1
IC004 +5V REG IC004 uPC2918-E1
IC005 +3.3V REG IC005 BA033FP-E2
IC003 +5V REG IC003 NJM78M05DL1A-TE1
IC001 +3.3V REG IC001 BA033FP-E2
IC002 +5V REG IC002 NJM78M05DL1A-TE1
Q002 2SB906 +12V SWITCH
Q001 DTC124EKA-T146 SWITCH
A TO RF-240 BOARD CN002 (Page 36)
M TO RF-240 BOARD CN004 (Page 36)
D TO AMP BOARD (1/2) CN305 (Page 50)
F TO I/O BOARD (1/2) CN601 (Page 53)
E TO I/O BOARD (2/2) CN700 (Page 54)
H TO POWER BOARD CN905 (Page 62)
2 TO DVD BOARD (1/9) (Page 39)
21 TO DVD BOARD (6/9) (Page 44)
18 TO DVD BOARD (6/9) (Page 44)
19 TO DVD BOARD (6/9,7/9) (Page 44) (Page 45)
72 TO DVD BOARD (7/9) (Page 45)
20 TO DVD BOARD (6/9) (Page 44)
22 TO DVD BOARD (6/9,7/9) (Page 44) (Page 45)
23 TO DVD BOARD (6/9) (Page 44)
24 TO DVD BOARD (8/9) (Page 46)
25 TO DVD BOARD (7/9) (Page 45)
26 TO DVD BOARD (6/9) (Page 44)
14 TO DVD BOARD (2/9) (Page 40)
11 TO DVD BOARD (2/9) (Page 40)
6 TO DVD BOARD (1/9) (Page 39)
71 TO DVD BOARD (2/9) (Page 40)
8 TO DVD BOARD (2/9) (Page 40)
85 TO DVD BOARD (2/9) (Page 40)
82 TO DVD BOARD (3/9) (Page 41)
9 TO DVD BOARD (2/9) (Page 40)
16 TO DVD BOARD (3/9) (Page 41)
17 TO DVD BOARD (8/9) (Page 46)
27 TO DVD BOARD (3/9,6/9) (Page 41) (Page 44)
67 TO DVD BOARD (6/9,7/9,8/9,9/9) (Page 44) (Page 46) (Page 45) (Page 47)
28 TO DVD BOARD (6/9) (Page 44)
29 TO DVD BOARD (3/9) (Page 41)
81 TO DVD BOARD (7/9,9/9) (Page 45) (Page 47)
30 TO DVD BOARD (7/9) (Page 45)
10 TO DVD BOARD (2/9) (Page 40)
12 TO DVD BOARD (2/9) (Page 40)
No mark:FM
< >:DVD
+1.8V
DA05V
DA03V
D5V
DGND
D3.3V
A3.3V
M12V
MGND
E5.6V
RESET
STPOW
DVDPW
6.5V

5-10. Schematic Diagram – DVD Board (5/9) –

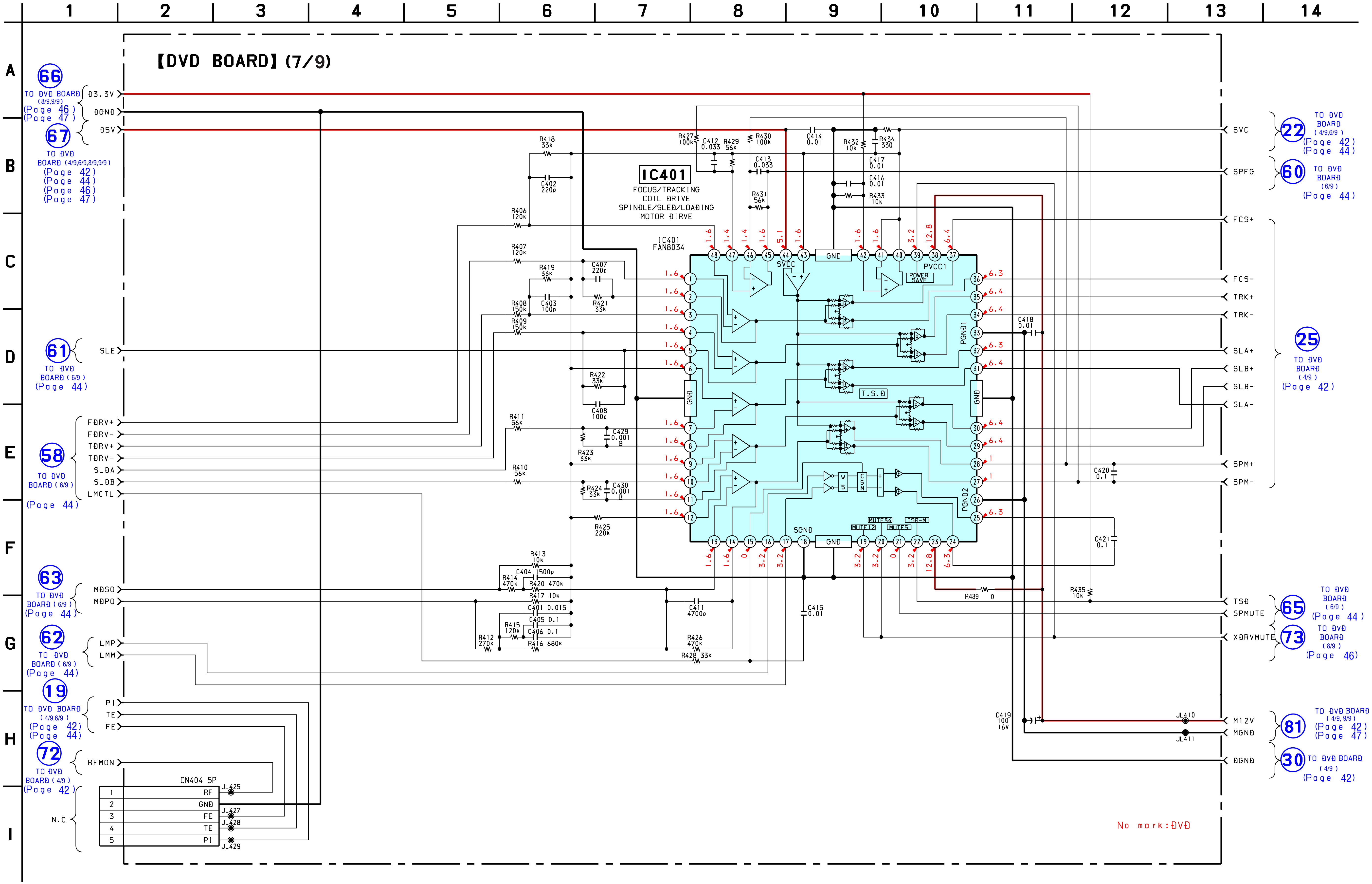
• See page 73 for IC Pin Function Descriptions.


【DVD BOARD】(5/9)
IC802
BUFFER
IC802
SN74AHC1GU04DBVR
IC803
16M SDRAM
IC803
IS42S16100-7T
IC804
2.5V REG
IC804
TA48M025F (TE16L)
IC801
PLAYBACK SIGNAL
PROCESSOR
IC801
CXD2752R
CH6:DSARS (Rch Surround)
CH5:DSALS (Lch Surround)
CH4:DSALFE (Low-Freq. Enhancement)
CH3:DSAC (Centre)
CH2:DSAR (Rch)
CH1:DSAL (Lch)
FL801
FL802
FL803
52
TO DVD BOARD (6/9) (Page 44)
46
TO DVD BOARD (6/9) (Page 44)
37
TO DVD BOARD (3/9, 6/9) (Page 41) (Page 44)
34
TO DVD BOARD (3/9) (Page 41)
35
TO DVD BOARD (3/9, 6/9) (Page 41) (Page 44)
51
TO DVD BOARD (6/9) (Page 44)
50
TO DVD BOARD (3/9) (Page 41)
69
TO DVD BOARD (3/9, 6/9, 8/9) (Page 41) (Page 44) (Page 46)
49
TO DVD BOARD (8/9) (Page 46)
41
TO DVD BOARD (3/9, 8/9, 9/9) (Page 41) (Page 44) (Page 46) (Page 47)
48
TO DVD BOARD (8/9) (Page 46)
4
TO DVD BOARD (1/9) (Page 39)
47
TO DVD BOARD (8/9) (Page 46)
WSAD0 – WSAD7
PLCK
XSASRQ
XSHD
SDCK
XSAK
SDEF
SDI0 – SDI7
D3.3V
DGND
TCK
TMS
TDOKT
TDOSA
TRST
XSACS
XRST
SCI
SOI
SII
SMUTE
SARDY
SDATARS
SDATALS
SDATALF
SDATAC
SDATAR
SDATAL
DSBC
DSMCK
33MSA
< >:DVD

5-11. Schematic Diagram – DVD Board (6/9) – • See page 69 for IC Pin Function Descriptions.

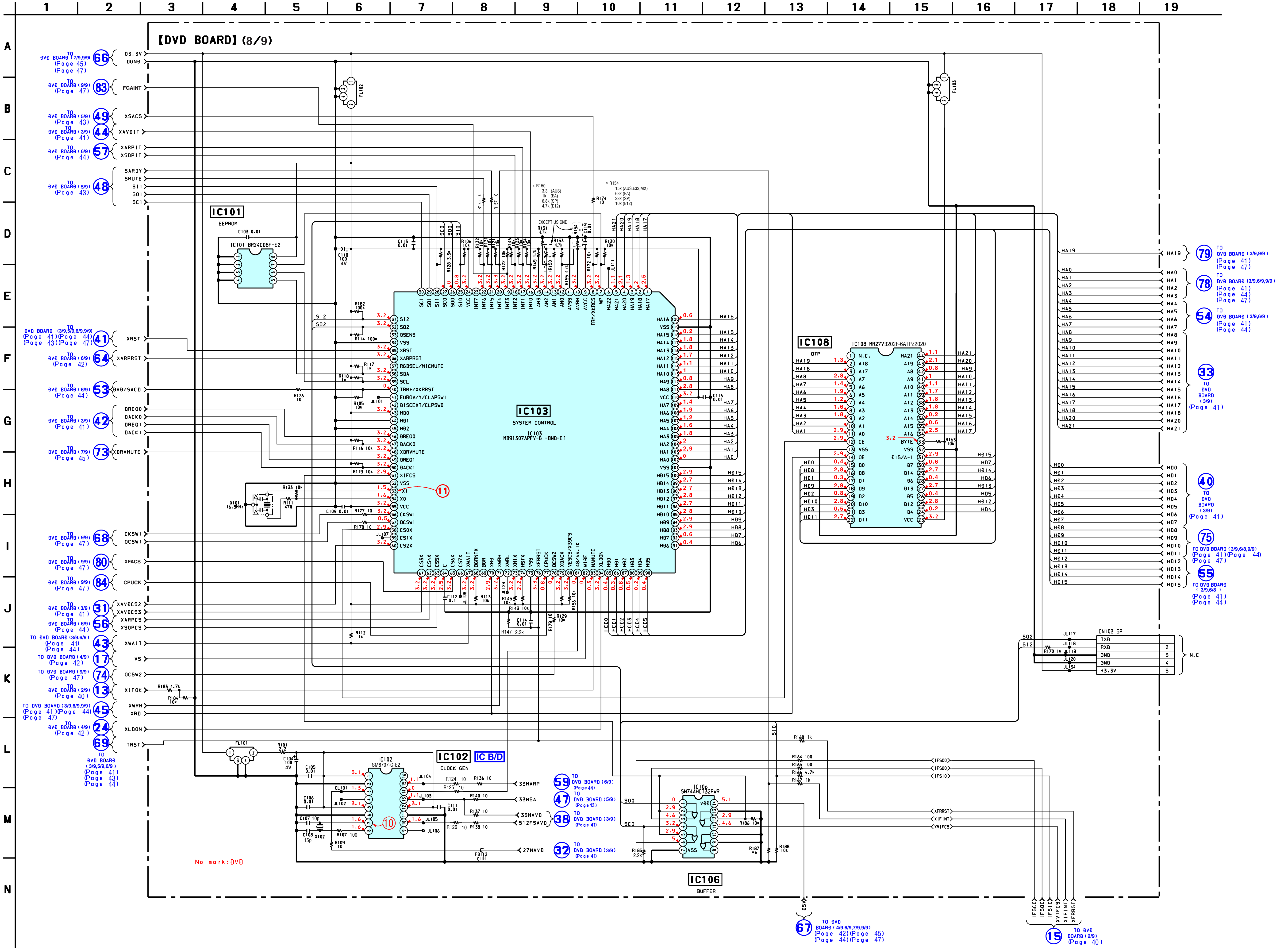

【DVD BOARD】(6/9)
IC302
SERVO DSP
IC302
CXD9635R
IC303
16M DRAM
IC303
GM71V18160CT-6TR
IC304
SELECTOR
IC304
TC7WH157FK
(TE85R)
52 TO DVD BOARD (5/9) (Page 43)
37 TO DVD BOARD (3/9,5/9) (Page 41) (Page 43)
39 TO DVD BOARD (3/9) (Page 41)
53 TO DVD BOARD (8/9) (Page 46)
67 TO DVD BOARD (4/9,7/9,8/9,9/9) (Page 42) (Page 45) (Page 46) (Page 47)
28 TO DVD BOARD (4/9) (Page 42)
46 TO DVD BOARD (5/9) (Page 43)
36 TO DVD BOARD (3/9) (Page 41)
27 TO DVD BOARD (3/9,4/9) (Page 41) (Page 42)
70 TO DVD BOARD (3/9) (Page 41)
18 TO DVD BOARD (4/9) (Page 42)
19 TO DVD BOARD (4/9,7/9) (Page 42) (Page 45)
61 TO DVD BOARD (7/9) (Page 45)
60 TO DVD BOARD (7/9) (Page 45)
22 TO DVD BOARD (4/9,7/9) (Page 42) (Page 45)
21 TO DVD BOARD (4/9) (Page 42)
41 TO DVD BOARD (3/9,5/9,8/9,9/9) (Page 41) (Page 43) (Page 46) (Page 47)
43 TO DVD BOARD (3/9,8/9) (Page 41) (Page 46)
56 TO DVD BOARD (8/9) (Page 46)
57 TO DVD BOARD (8/9) (Page 46)
54 TO DVD BOARD (3/9,8/9) (Page 41) (Page 46)
78 TO DVD BOARD (3/9,8/9,9/9) (Page 41) (Page 46) (Page 47)
55 TO DVD BOARD (3/9,8/9) (Page 41) (Page 46)
75 TO DVD BOARD (3/9,8/9,9/9) (Page 41) (Page 46) (Page 47)
69 TO DVD BOARD (3/9,5/9,8/9) (Page 41) (Page 43) (Page 46)
35 TO DVD BOARD (3/9,5/9) (Page 41) (Page 43)
51 TO DVD BOARD (5/9) (Page 43)
64 TO DVD BOARD (8/9) (Page 46)
63 TO DVD BOARD (7/9) (Page 45)
26 TO DVD BOARD (4/9) (Page 42)
65 TO DVD BOARD (7/9) (Page 45)
23 TO DVD BOARD (4/9) (Page 42)
62 TO DVD BOARD (7/9) (Page 45)
23 TO DVD BOARD (4/9) (Page 42)
59 TO DVD BOARD (8/9) (Page 46)
20 TO DVD BOARD (4/9) (Page 42)
58 TO DVD BOARD (7/9) (Page 45)
45 TO DVD BOARD (3/9,8/9,9/9) (Page 41) (Page 46) (Page 47)
D5V
D3.3V
A3.3V
DGND
RF+
TE
FE
PI
SLE
SPFG
SVC
SS_MON
XRST
DVD/SACD
XSASRQ
XAVSRQ
+1.8V
D3.3V
DGND
XWAIT
XSOPCS
XSARPCS
XSOPIT
XARPIT
HA7
HA6
HA5
HA4
HA3
HA2
HA1
HA0
HD15
HD14
HD13
HD12
HD11
HD10
HD9
HD8
TRST
TMS
TCK
TDOKT
XARPRST
MDSO
MDPO
INLIM
SPMUTE
TSD
RFTPON
D3.3V
SSRD
SSWD
SSCK
LMP
LMM
SSCS
33MARP
SSDFCTI
TZC
MIRR
SLDA
SLGA
LMCTL
TDRV+
TDRV-
FDRV+
FDRV-
XWRH
XRD
WSAD7
WSAD6
WSAD5
WSAD4
WSAD3
WSAD2
WSAD1
WSAD0
PLCK
SD17
SD16
SD15
SD14
SD13
SD12
SD11
SD10
SDEF
XSAK
XSHD
SDCK
CDDOUT
CDLRCK
CDBCK
CDDATA

5-12. Schematic Diagram – DVD Board (7/9) –



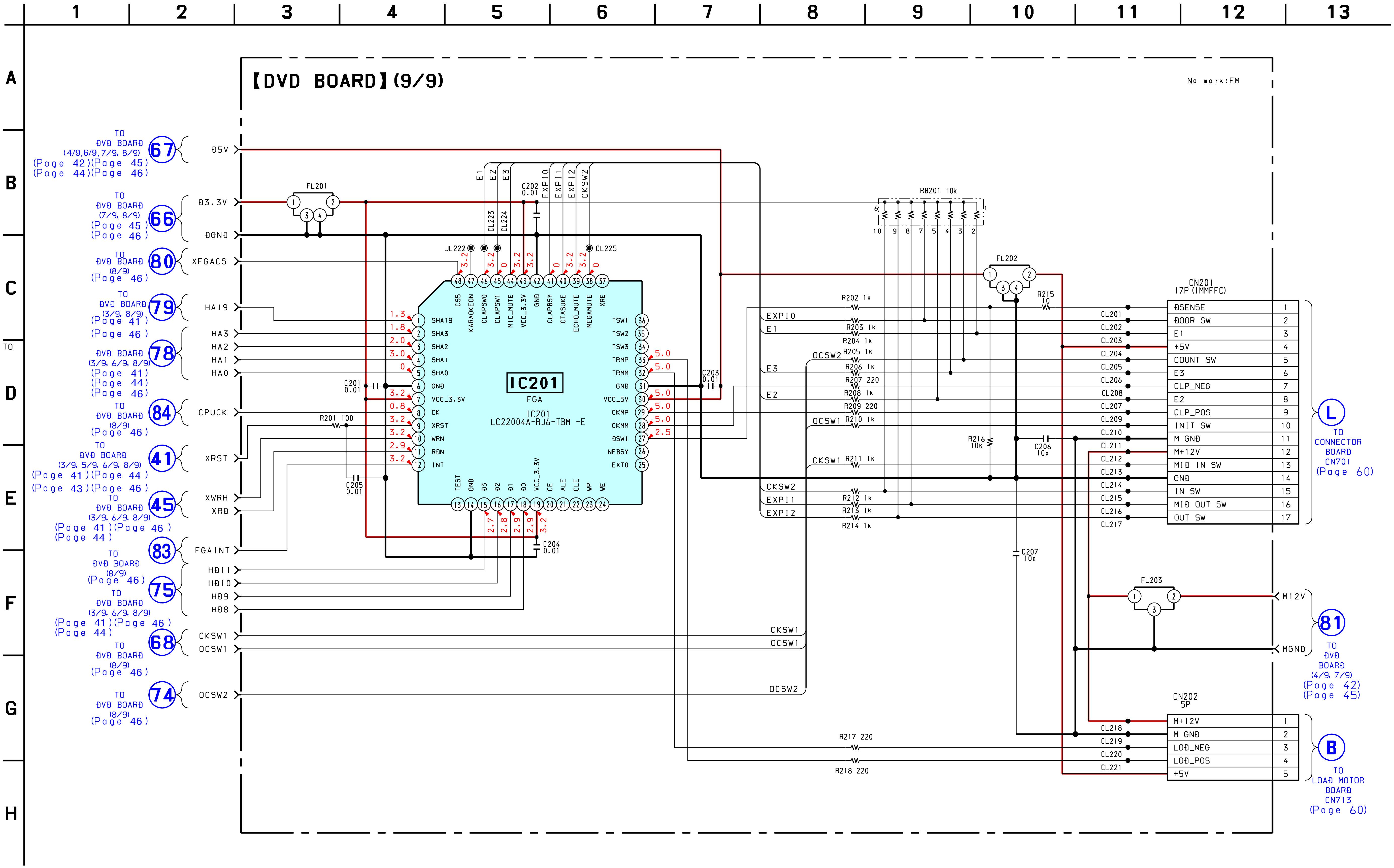
1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
【DVD BOARD】(7/9)
66
TO DVD BOARD (8/9,9/9)
(Page 46)
(Page 47)
D3.3V
DGND
D5V
67
TO DVD BOARD (4/9,6/9,8/9,9/9)
(Page 42)
(Page 44)
(Page 46)
(Page 47)
IC401
FOCUS/TRACKING
COIL DRIVE
SPINDLE/SLED/LOADING
MOTOR DIRVE
IC401
FAN8034
R418 33k
C402 220p
R406 120k
R407 120k
R419 33k
C407 220p
R408 150k
C403 100p
R421 33k
R409 150k
R422 33k
C408 100p
R411 56k
C429 0.001 B
R423 33k
R410 56k
R424 33k
C430 0.001 B
R425 220k
R413 10k
C404 1500p
R414 470k
R420 470k
R417 10k
C401 0.015
C405 0.1
R415 120k
C406 0.1
R412 270k
R416 680k
C411 4700p
R426 470k
R428 33k
C415 0.01
R427 100k
C412 0.033
R429 56k
R430 100k
C413 0.033
C414 0.01
R431 56k
R432 10k
R434 330
C417 0.01
C416 0.01
R433 10k
C418 0.01
C420 0.1
C421 0.1
R435 10k
R439 0
C419 100 16V
JL410
JL411
SVCC
PVCC1
POWER SAVE
GND
PGND1
PGND2
T.S.D
SGND
MUTE34
MUTE12
MUTE5
TSD-M
W
S
CSM
61
TO DVD BOARD (6/9)
(Page 44)
SLE
58
TO DVD BOARD (6/9)
(Page 44)
FDRV+
FDRV-
TDRV+
TDRV-
SLDA
SLDB
LMCTL
63
TO DVD BOARD (6/9)
(Page 44)
MDSO
MDPO
62
TO DVD BOARD (6/9)
(Page 44)
LMP
LMM
19
TO DVD BOARD (4/9,6/9)
(Page 42)
(Page 44)
PI
TE
FE
72
TO DVD BOARD (4/9)
(Page 42)
RFMON
N.C
CN404 5P
1 RF
2 GND
3 FE
4 TE
5 PI
JL425
JL427
JL428
JL429
SVC
SPFG
22
TO DVD BOARD (4/9,6/9)
(Page 42)
(Page 44)
60
TO DVD BOARD (6/9)
(Page 44)
FCS+
FCS-
TRK+
TRK-
SLA+
SLB+
SLB-
SLA-
25
TO DVD BOARD (4/9)
(Page 42)
SPM+
SPM-
TSD
SPMUTE
XDRVMUTE
65
TO DVD BOARD (6/9)
(Page 44)
73
TO DVD BOARD (8/9)
(Page 46)
M12V
MGND
DGND
81
TO DVD BOARD (4/9, 9/9)
(Page 42)
(Page 47)
30
TO DVD BOARD (4/9)
(Page 42)
No mark:DVD

5-13. Schematic Diagram – DVD Board (8/9) – • See page 31 for Wavefoms. • See page 63 for IC Block Diagrams. • See page 66 for IC Pin Function Descriptions.

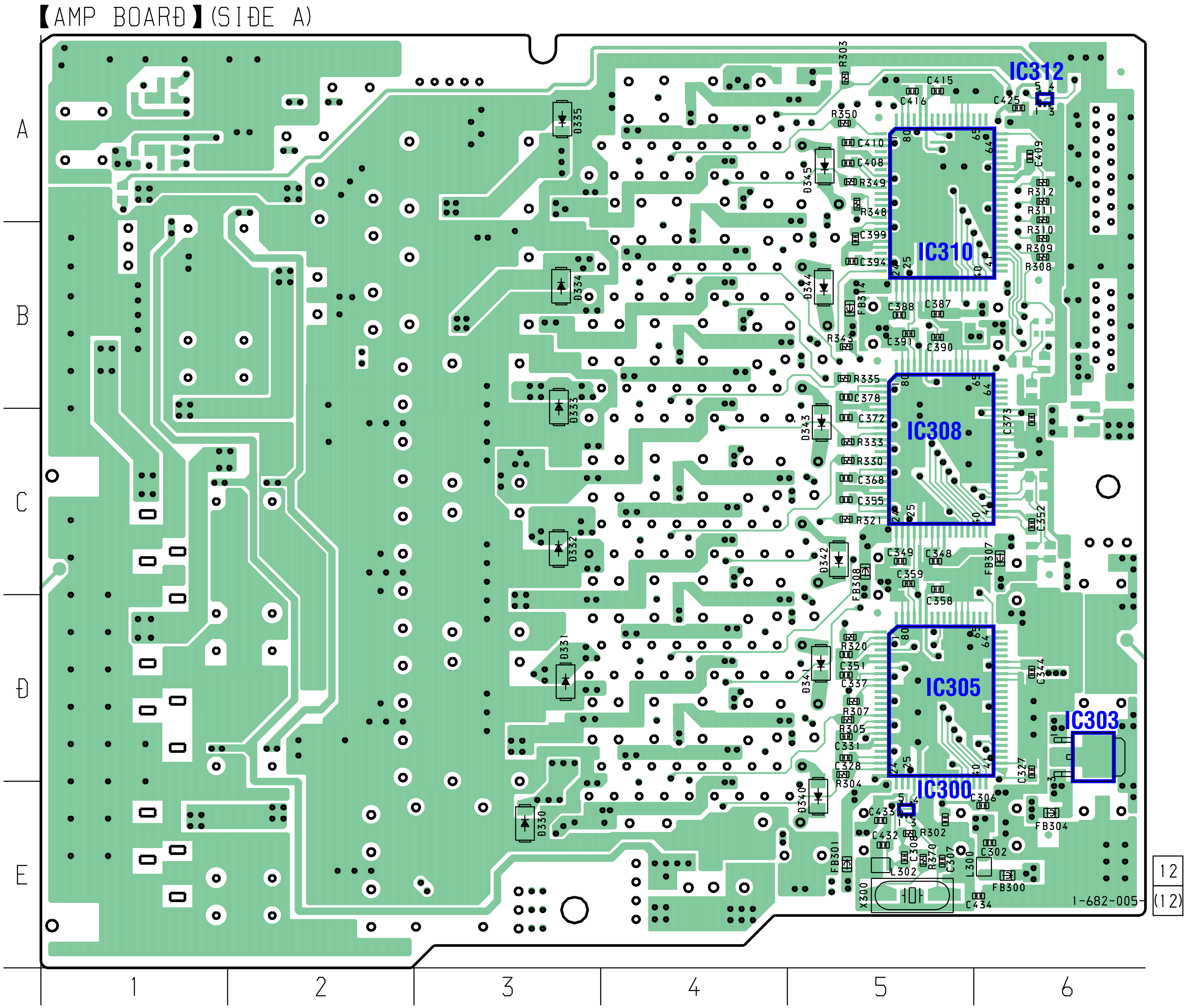


【DVD BOARD】(8/9)
IC101 EEPROM
IC101 BR24C08F-E2
IC103 SYSTEM CONTROL
IC103 MB91307APFV-G -BND-E1
IC108 OTP
IC108 MR27V3202F-6ATPZ2020
IC102 CLOCK GEN
IC102 SM8707-G-E2
IC B/D
IC106 BUFFER
IC106 SN74AHC132PWR
CN103 5P
TXD
RXD
GND
GND
+3.3V
N.C
X101 16.5MHz
FL101
FL102
FL103
D3.3V
DGND
FGAINT
XSACS
XAVDIT
XARPIT
XSDPIT
SARDY
SMUTE
SI1
SO1
SC1
XRST
XARPRST
DVD/SACD
DREQ0
DACK0
DREQ1
DACK1
XDRVMUTE
CKSW1
OCSW1
XFACS
CPUCK
XAVDCS2
XAVDCS3
XARPCS
XSDPCS
XWAIT
VS
OCSW2
XIFOK
XWRH
XRD
XLDON
TRST
33MARP
33MSA
33MAVD
S12FSAVD
27MAVD
XIFSCO
XIFSDO
XIFSIO
XFRRST
XIFINT
XVIFCS
HA0 – HA21
HD0 – HD15
HCD0 – HCD5
TO DVD BOARD (7/9,9/9) (Page 45) (Page 47) 66
TO DVD BOARD (9/9) (Page 47) 83
TO DVD BOARD (5/9) (Page 43) 49
TO DVD BOARD (3/9) (Page 41) 44
TO DVD BOARD (6/9) (Page 44) 57
TO DVD BOARD (5/9) (Page 43) 48
TO DVD BOARD (3/9,5/9,6/9,9/9) (Page 41)(Page 44) (Page 43)(Page 47) 41
TO DVD BOARD (6/9) (Page 42) 64
TO DVD BOARD (6/9) (Page 44) 53
TO DVD BOARD (3/9) (Page 41) 42
TO DVD BOARD (7/9) (Page 45) 73
TO DVD BOARD (9/9) (Page 47) 68
TO DVD BOARD (9/9) (Page 47) 80
TO DVD BOARD (9/9) (Page 47) 84
TO DVD BOARD (3/9) (Page 41) 31
TO DVD BOARD (6/9) (Page 44) 56
TO DVD BOARD (3/9,6/9) (Page 41) (Page 44) 43
TO DVD BOARD (4/9) (Page 42) 17
TO DVD BOARD (9/9) (Page 47) 74
TO DVD BOARD (2/9) (Page 40) 13
TO DVD BOARD (3/9,6/9,9/9) (Page 41)(Page 44) (Page 47) 45
TO DVD BOARD (4/9) (Page 42) 24
TO DVD BOARD (3/9,5/9,6/9) (Page 41) (Page 43) (Page 44) 69
TO DVD BOARD (6/9) (Page 44) 59
TO DVD BOARD (5/9) (Page 43) 47
TO DVD BOARD (3/9) (Page 41) 38
TO DVD BOARD (3/9) (Page 41) 32
TO DVD BOARD (3/9,9/9) (Page 41) (Page 47) 79
TO DVD BOARD (3/9,6/9,9/9) (Page 41) (Page 44) (Page 47) 78
TO DVD BOARD (3/9,6/9) (Page 41) (Page 44) 54
TO DVD BOARD (3/9) (Page 41) 33
TO DVD BOARD (3/9) (Page 41) 40
TO DVD BOARD (3/9,6/8,9/9) (Page 41)(Page 44) (Page 47) 75
TO DVD BOARD (3/9,6/8) (Page 41) (Page 44) 55
TO DVD BOARD (4/9,6/9,7/9,9/9) (Page 42)(Page 45) (Page 44)(Page 47) 67
TO DVD BOARD (2/9) (Page 40) 15
* R150 3.3 (AUS) 1k (EA) 6.8k (SP) 4.7k (E12)
* R154 15k (AUS,E32,MX) 68k (EA) 33k (SP) 10k (E12)
EXCEPT US,CND
No mark:DVD

5-14. Schematic Diagram – DVD Board (9/9) –


【DVD BOARD】(9/9)
No mark:FM
IC201
FGA
IC201
LC22004A-RJ6-TBM -E
TO DVD BOARD (4/9,6/9,7/9,8/9) (Page 42)(Page 45)(Page 44)(Page 46) 67 D5V
TO DVD BOARD (7/9,8/9) (Page 45)(Page 46) 66 D3.3V DGND
TO DVD BOARD (8/9) (Page 46) 80 XFGACS
TO DVD BOARD (3/9,8/9) (Page 41)(Page 46) 79 HA19
TO DVD BOARD (3/9,6/9,8/9) (Page 41)(Page 44)(Page 46) 78 HA3 HA2 HA1 HA0
TO DVD BOARD (8/9) (Page 46) 84 CPUCK
TO DVD BOARD (3/9,5/9,6/9,8/9) (Page 41)(Page 44)(Page 43)(Page 46) 41 XRST
TO DVD BOARD (3/9,6/9,8/9) (Page 41)(Page 46)(Page 44) 45 XWRH XRD
TO DVD BOARD (8/9) (Page 46) 83 FGAINT
TO DVD BOARD (3/9,6/9,8/9) (Page 41)(Page 46)(Page 44) 75 HD11 HD10 HD9 HD8
TO DVD BOARD (8/9) (Page 46) 68 CKSW1 OCSW1
TO DVD BOARD (8/9) (Page 46) 74 OCSW2
FL201 FL202 FL203
RB201 10k
C201 0.01 C202 0.01 C203 0.01 C204 0.01 C205 0.01 C206 10p C207 10p
R201 100 R202 1k R203 1k R204 1k R205 1k R206 1k R207 220 R208 1k R209 220 R210 1k R211 1k R212 1k R213 1k R214 1k R215 10 R216 10k R217 220 R218 220
JL222 CL223 CL224 CL225
E1 E2 E3 EXP10 EXP11 EXP12 CKSW2 OCSW2 OCSW1 CKSW1
1 SHA19 2 SHA3 3 SHA2 4 SHA1 5 SHA0 6 GND 7 VCC_3.3V 8 CK 9 XRST 10 WRN 11 RDN 12 INT
13 TEST 14 GND 15 D3 16 D2 17 D1 18 D0 19 VCC_3.3V 20 CE 21 ALE 22 CLE 23 WP 24 WE
25 EXTO 26 NFBSY 27 DSW1 28 CKMM 29 CKMP 30 VCC_5V 31 GND 32 TRMM 33 TRMP 34 TSW3 35 TSW2 36 TSW1
37 XRE 38 MEGAMUTE 39 ECHO_MUTE 40 OTASUKE 41 CLAPBSY 42 GND 43 VCC_3.3V 44 MIC_MUTE 45 CLAPSW1 46 CLAPSW0 47 KARAOKEON 48 CS5
CN201 17P (1MMFFC)
1 DSENSE 2 DOOR SW 3 E1 4 +5V 5 COUNT SW 6 E3 7 CLP_NEG 8 E2 9 CLP_POS 10 INIT SW 11 M GND 12 M+12V 13 MID IN SW 14 GND 15 IN SW 16 MID OUT SW 17 OUT SW
CL201 CL202 CL203 CL204 CL205 CL206 CL208 CL207 CL209 CL210 CL211 CL212 CL213 CL214 CL215 CL216 CL217
L TO CONNECTOR BOARD CN701 (Page 60)
M12V MGND 81 TO DVD BOARD (4/9,7/9) (Page 42)(Page 45)
CN202 5P
1 M+12V 2 M GND 3 LOD_NEG 4 LOD_POS 5 +5V
CL218 CL219 CL220 CL221
B TO LOAD MOTOR BOARD CN713 (Page 60)
1 2 3 4 5 6 7 8 9 10 11 12 13
A B C D E F G H

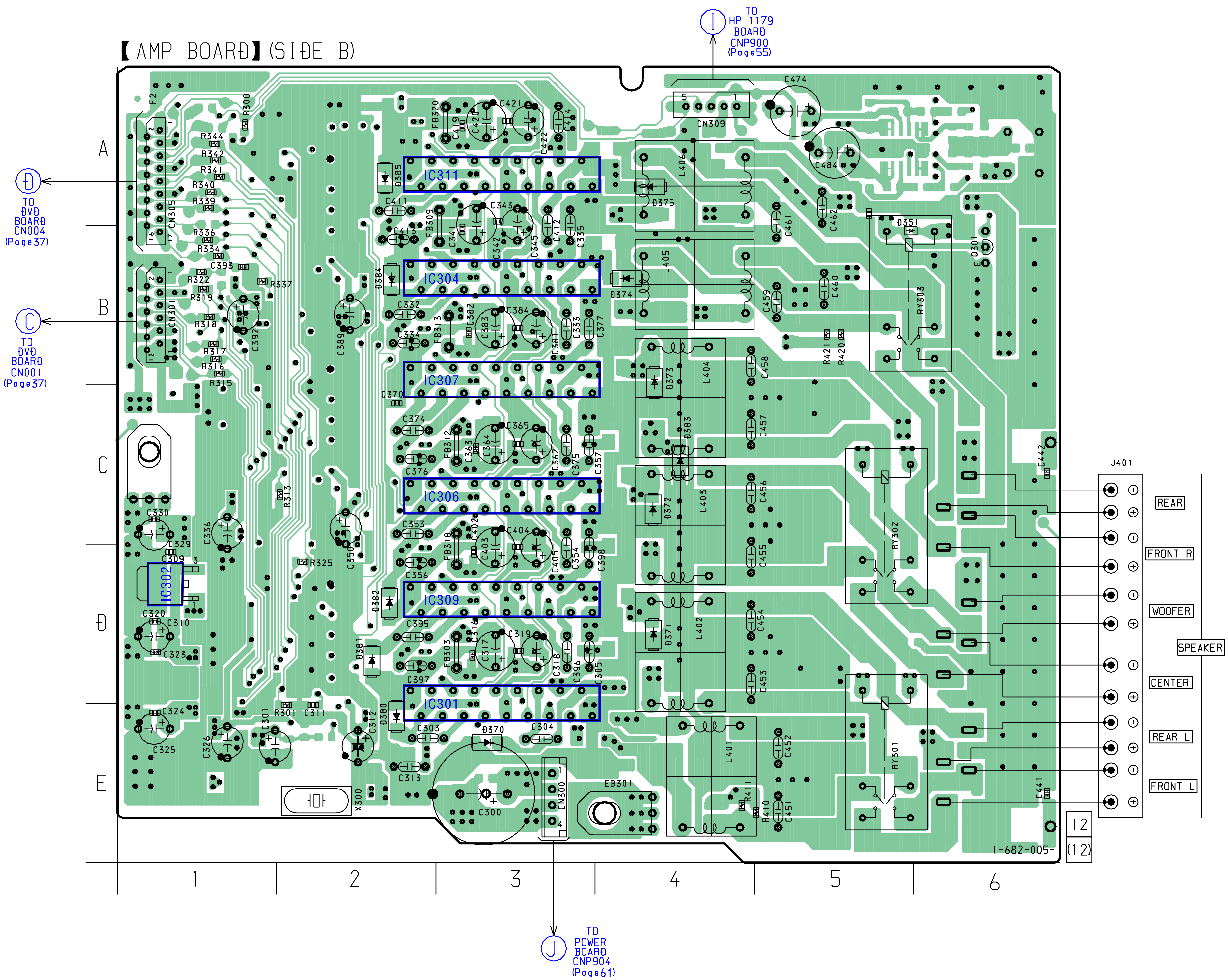
5-15. Printed Wiring Board – AMP Board (Side A) – • See page 30 for Circuit Boards Location.


【AMP BOARD】(SIDE A)
A
B
C
D
E
1
2
3
4
5
6
IC312
IC310
IC308
IC305
IC303
IC300
D330
D331
D332
D333
D334
D335
D340
D341
D342
D343
D344
D345
R303
R350
C415
C416
C425
C410
C408
R349
R348
C399
C394
C409
R312
R311
R310
R309
R308
FB314
C388
C387
C391
C390
R343
R335
C378
C372
R333
R330
C368
C355
R321
C373
C352
C349
C348
C359
C358
FB307
FB308
R320
C351
C337
R307
R305
C331
C328
R304
C344
C327
C433
C432
R302
C306
C302
FB304
FB301
L302
R370
C307
L300
FB300
C434
X300
1-682-005-
12
(12)

• **Semiconductor Location**

Ref. No.	Location
D330	E-3
D331	D-3
D332	C-3
D333	B-3
D334	B-3
D335	A-3
D340	E-5
D341	D-5
D342	C-5
D343	C-5
D344	B-5
D345	A-5
IC300	E-5
IC303	E-6
IC305	D-5
IC308	C-5
IC310	A-5
IC312	A-6

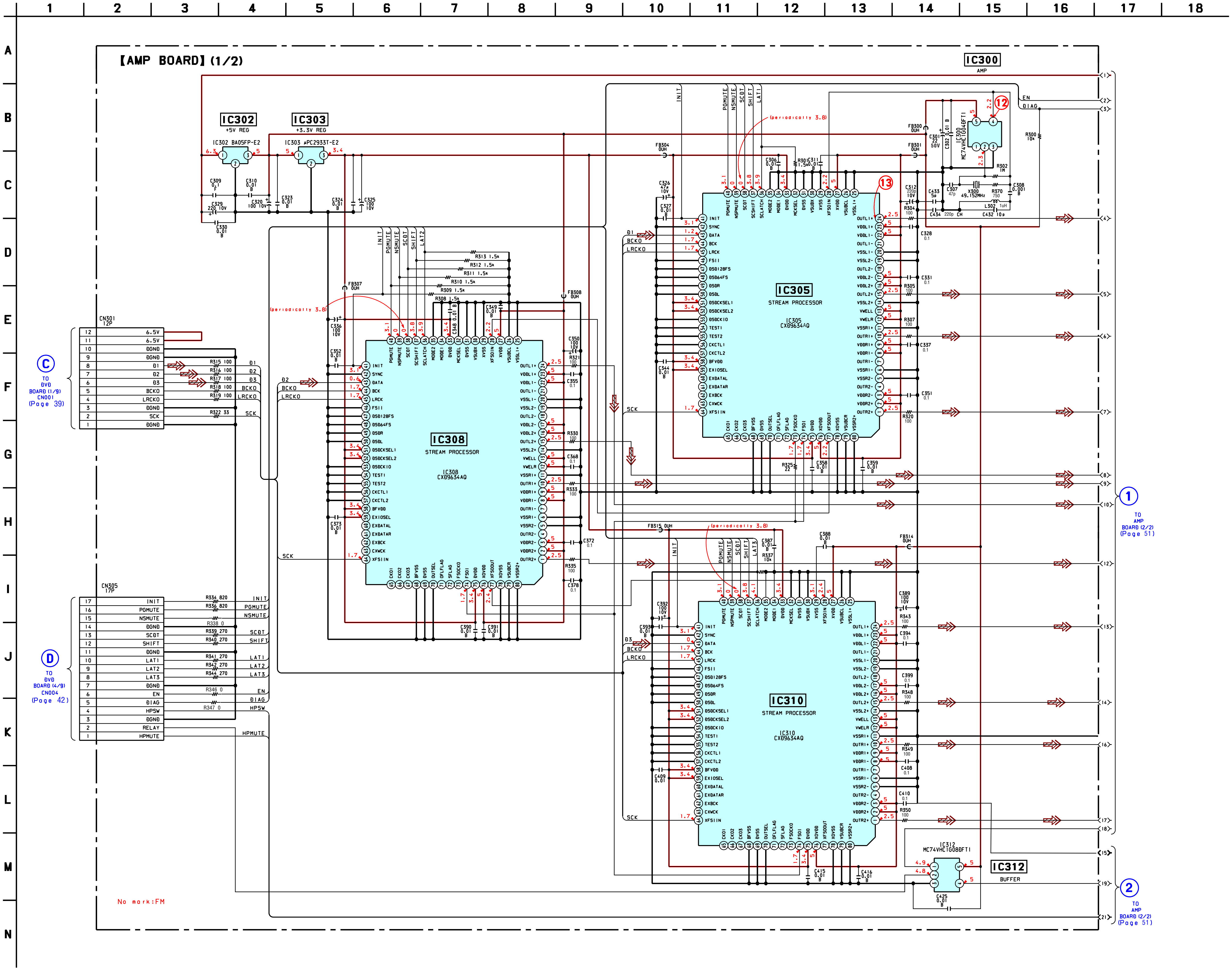
5-16. Printed Wiring Board – AMP Board (Side B) – • See page 30 for Circuit Boards Location.


【AMP BOARD】(SIDE B)
TO HP 1179 BOARD CNP900 (Page55)
TO DVD BOARD CN004 (Page37)
TO DVD BOARD CN001 (Page37)
TO POWER BOARD CNP904 (Page61)
CN305
CN301
CN309
CN300
IC311
IC304
IC307
IC306
IC309
IC301
IC302
J401
REAR
FRONT R
WOOFER
SPEAKER
CENTER
REAR L
FRONT L
RY301
RY302
RY303
L401
L402
L403
L404
L405
L406
Q301
X300
EB301
C300
C474
C484
1-682-005-
12
(12)
A
B
C
D
E
1
2
3
4
5
6

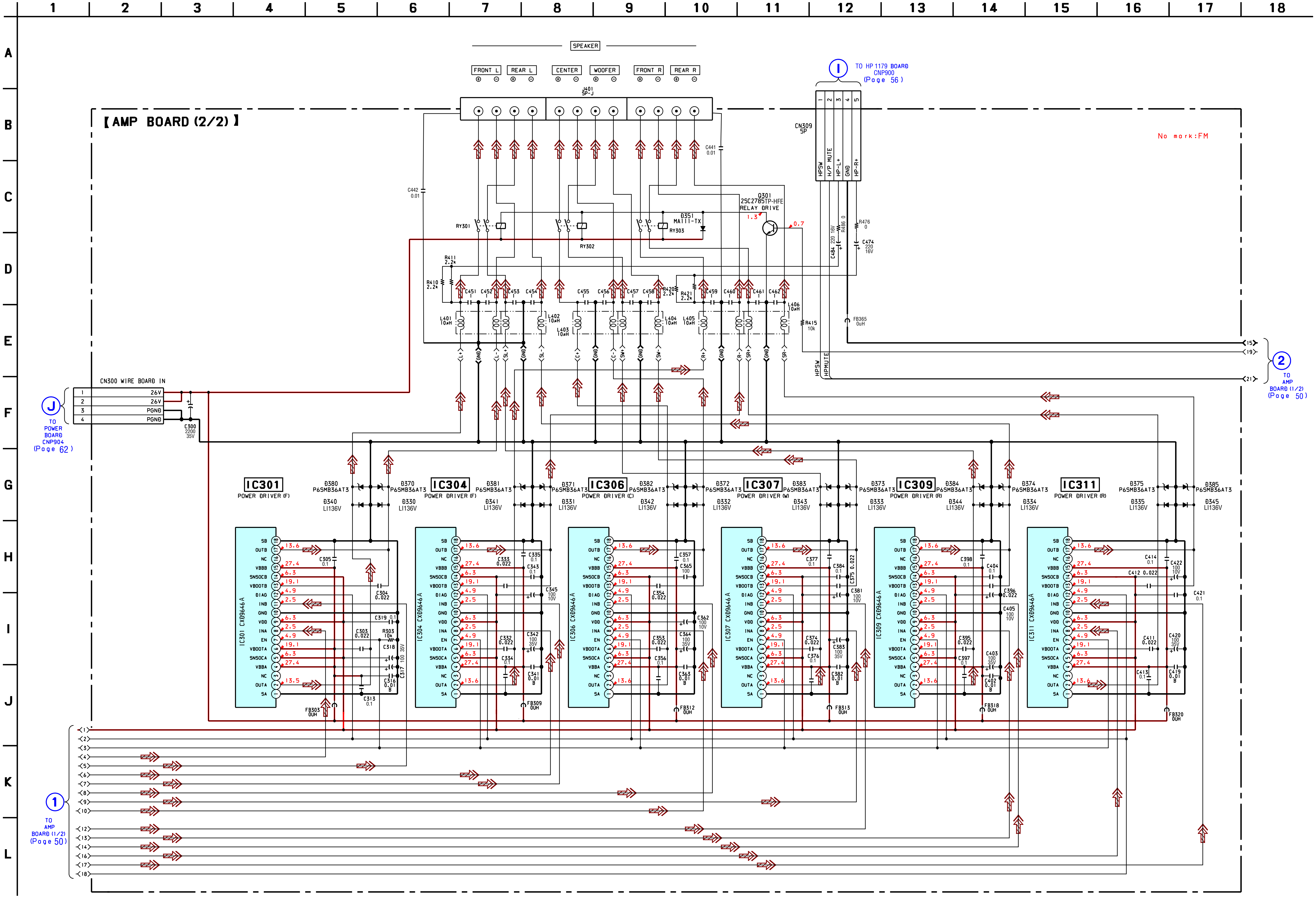
• Semiconductor Location

Ref. No.	Location
D310	D-4
D311	B-4
D312	C-4
D313	B-4
D314	D-4
D315	A-4
D320	E-4
D321	B-4
D322	C-4
D323	C-4
D324	D-4
D325	A-4
D351	B-5
D370	E-3
D371	D-4
D372	C-4
D373	B-4
D374	B-4
D375	A-4
D380	E-2
D381	D-2
D382	D-2
D383	C-4
D384	B-2
D385	A-2
IC301	E-3
IC302	D-1
IC304	B-3
IC306	C-3
IC307	B-3
IC309	D-3
IC311	A-3
Q301	B-6

5-17. Schematic Diagram – AMP Board (1/2) – • See page 31 for Wavefoms.

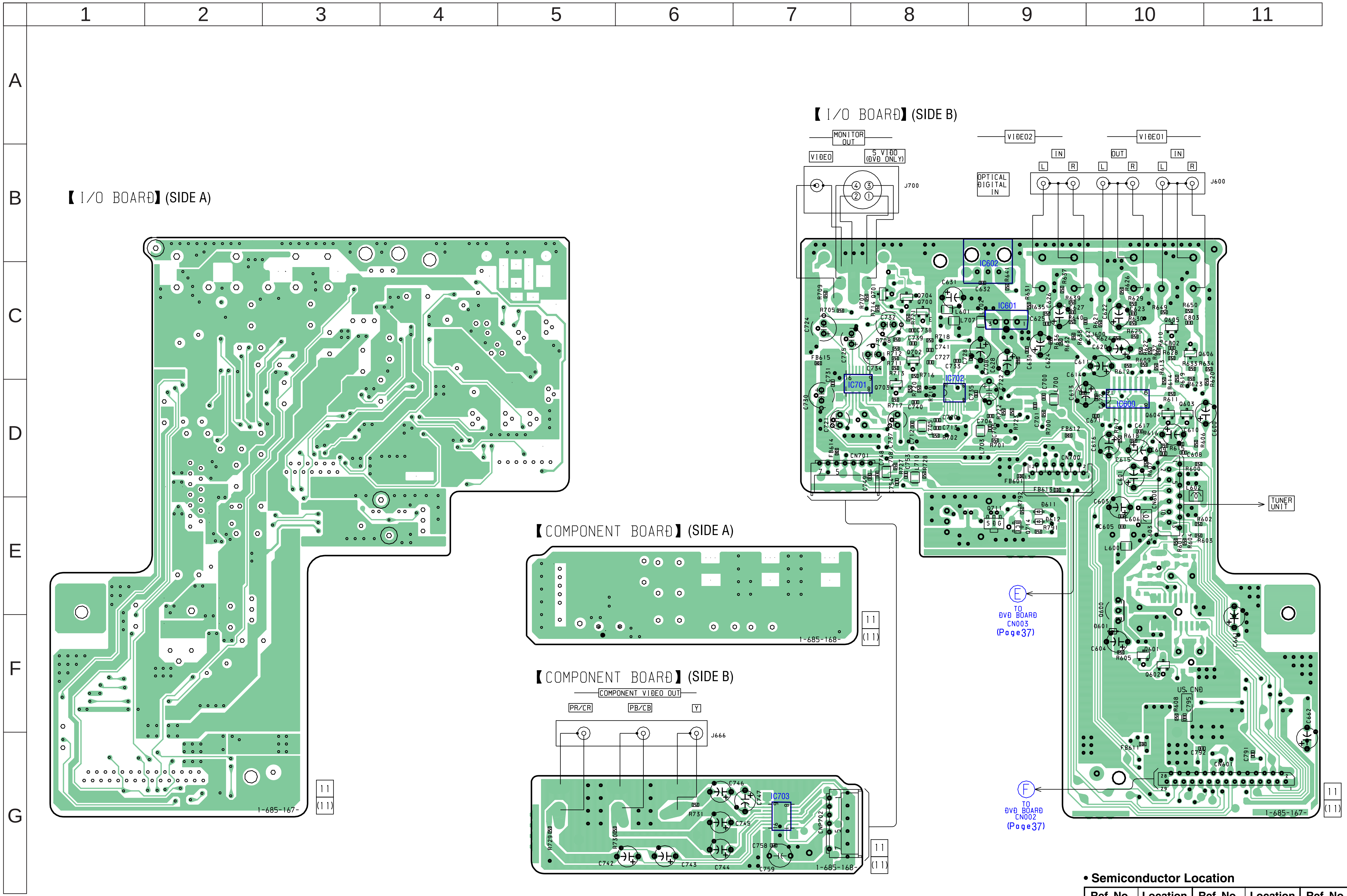

【AMP BOARD】(1/2)
IC300
AMP
IC302
+5V REG
IC302 BA05FP-E2
IC303
+3.3V REG
IC303 #PC2933T-E2
IC300
MC74VHC1G04DFT1
X300
49.152MHz
IC305
STREAM PROCESSOR
IC305
CXD9634AQ
IC308
STREAM PROCESSOR
IC308
CXD9634AQ
IC310
STREAM PROCESSOR
IC310
CXD9634AQ
IC312
MC74VHC1G08DFT1
IC312
BUFFER
CN301
12P
CN305
17P
C
TO
DVD
BOARD (1/9)
CN001
(Page 39)
D
TO
DVD
BOARD (4/9)
CN004
(Page 42)
1
TO
AMP
BOARD (2/2)
(Page 51)
2
TO
AMP
BOARD (2/2)
(Page 51)
(periodically 3.8)
No mark:FM
12
13

5-18. Schematic Diagram – AMP Board (2/2) –


【AMP BOARD (2/2)】
SPEAKER
FRONT L
REAR L
CENTER
WOOFER
FRONT R
REAR R
J401 SP-J
TO HP 1179 BOARD CNP900 (Page 56)
CN309 5P
HPSW
H/P MUTE
HP-L+
GND
HP-R+
No mark:FM
Q301 2SC2785TP-HFE RELAY DRIVE
D351 MA111-TX
RY301
RY302
RY303
CN300 WIRE BOARD IN
26V
26V
PGND
PGND
C300 2200 35V
TO POWER BOARD CNP904 (Page 62)
TO AMP BOARD (1/2) (Page 50)
TO AMP BOARD (1/2) (Page 50)
IC301 POWER DRIVER (F)
IC304 POWER DRIVER (F)
IC306 POWER DRIVER (C)
IC307 POWER DRIVER (W)
IC309 POWER DRIVER (R)
IC311 POWER DRIVER (R)
IC301 CXD9646A
IC304 CXD9646A
IC306 CXD9646A
IC307 CXD9646A
IC309 CXD9646A
IC311 CXD9646A
SB
OUTB
NC
VBBB
SNSOCB
VBOOTB
DIAG
INB
GND
VDD
INA
EN
VBOOTA
SNSOCA
VBBA
NC
OUTA
SA
P6SMB36AT3
LI136V
FB303 0UH
FB309 0UH
FB312 0UH
FB313 0UH
FB318 0UH
FB320 0UH
FB365 0UH
L401 10uH
L402 10uH
L403 10uH
L404 10uH
L405 10uH
L406 10uH
R410 2.2k
R411 2.2k
R420 2.2k
R421 2.2k
R415 10k
C441 0.01
C442 0.01
C474 220 16V
C484 220 16V
R476 0
R486 0
HPSW
HPMUTE

5-19. Printed Wiring Board – I/O Section –

- See page 30 for Circuit Boards Location.

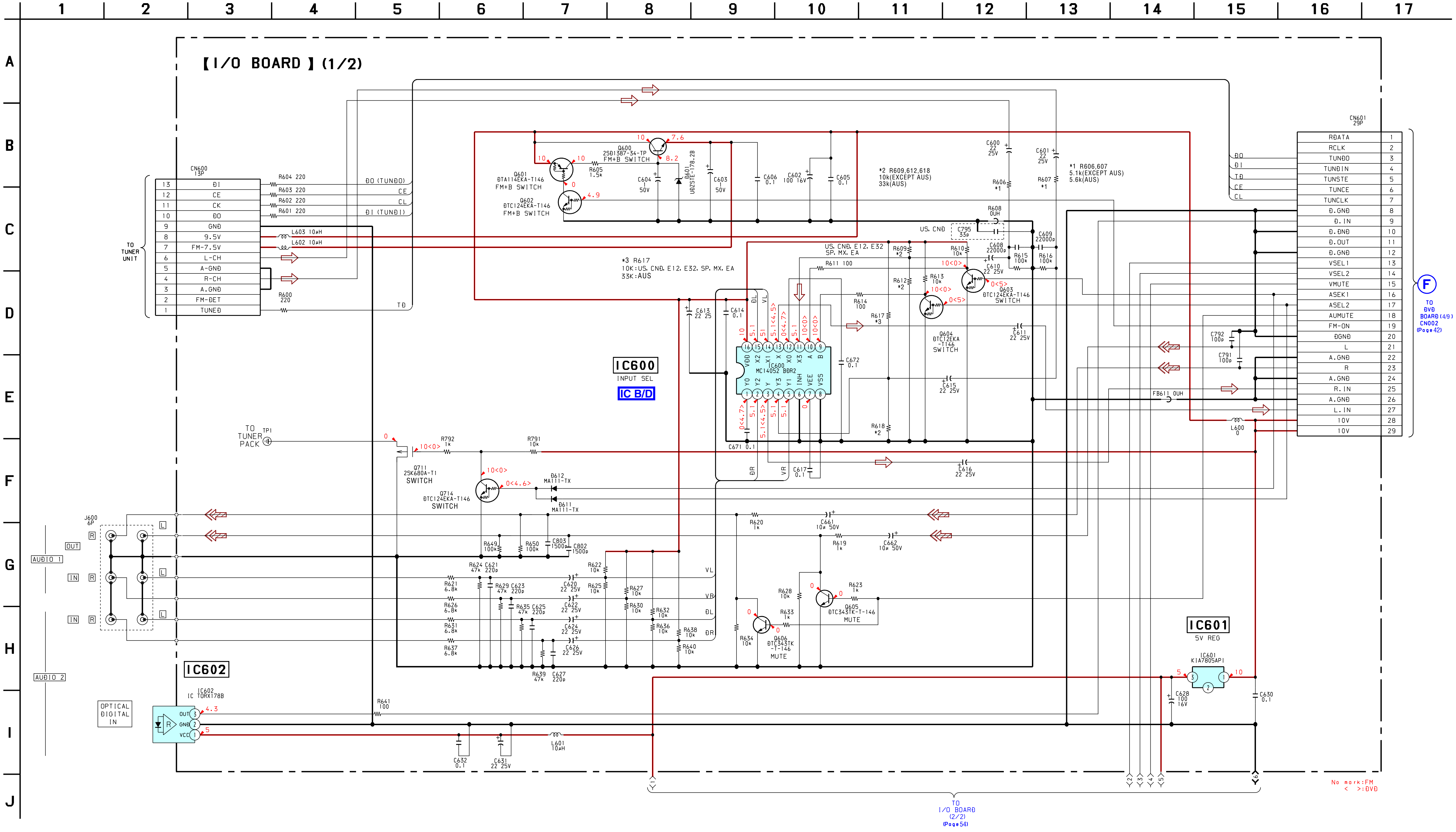

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
【I/O BOARD】(SIDE A)
1-685-167-
11
(11)
【I/O BOARD】(SIDE B)
MONITOR OUT
VIDEO
S VIDO (DVD ONLY)
J700
OPTICAL DIGITAL IN
VIDEO2
VIDEO1
IN
OUT
L
R
J600
IC602
IC601
IC701
IC702
IC600
CN701
CN700
CN600
CN601
TUNER UNIT
US, CND
E
TO DVD BOARD CN003 (Page37)
F
TO DVD BOARD CN002 (Page37)
1-685-167-
11
(11)
【COMPONENT BOARD】(SIDE A)
1-685-168-
11
(11)
【COMPONENT BOARD】(SIDE B)
COMPONENT VIDEO OUT
PR/CR
PB/CB
Y
J666
IC703
CNP702
1-685-168
11
(11)

- **Semiconductor Location**

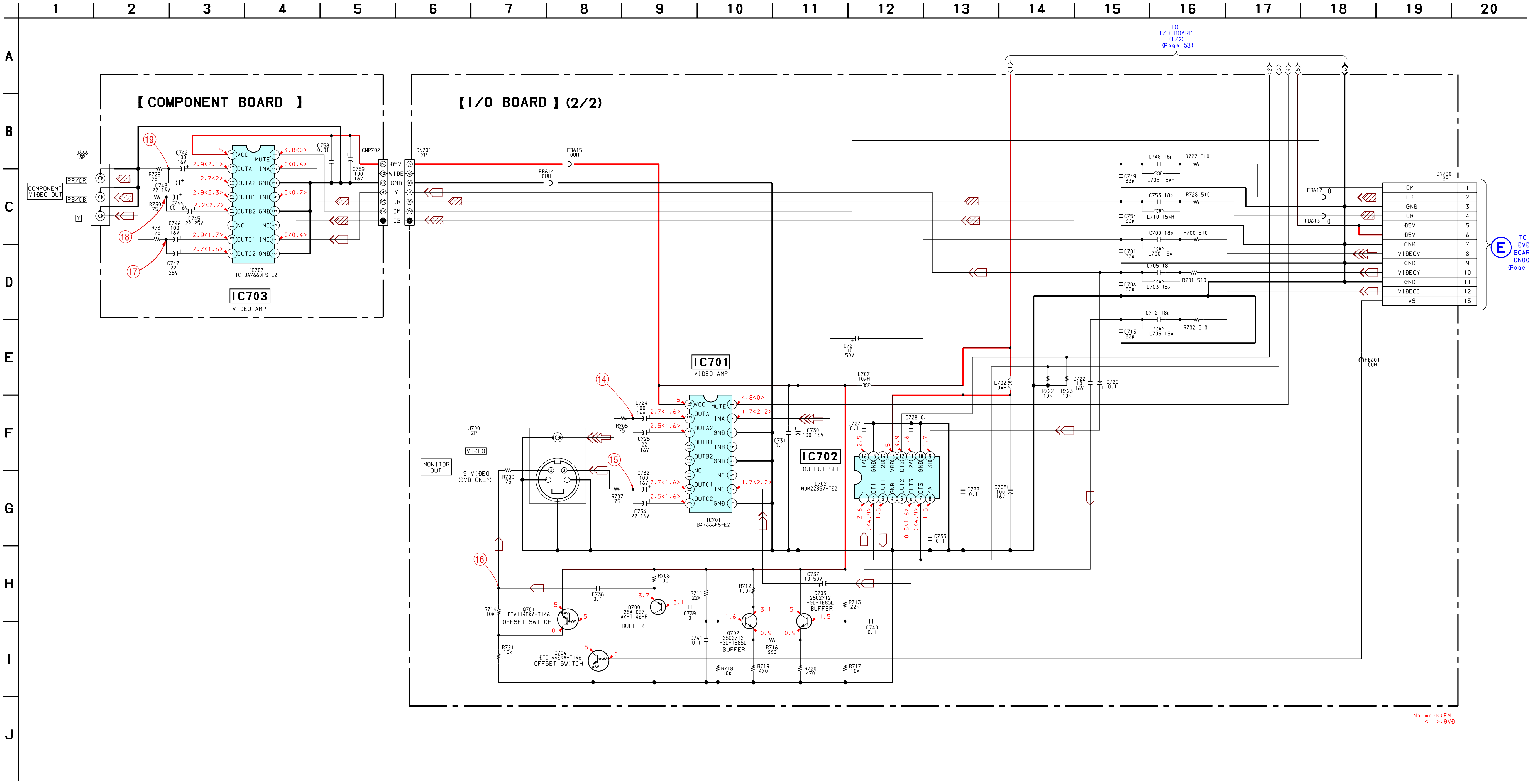
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D601	F-10	IC703	G-7	Q700	C-8
D611	E-9			Q701	C-8
D612	E-9	Q600	E-10	Q702	C-8
		Q601	F-10	Q703	D-8
IC600	D-10	Q602	F-10	Q704	C-8
IC601	C-9	Q603	D-10	Q711	E-9
IC602	B-9	Q604	D-10	Q714	E-9
IC701	D-8	Q605	C-10		
IC702	D-8	Q606	C-10		

5-20. Schematic Diagram – I/O Section (1/2) –

• See page 64 for IC Block Diagrams.


【I/O BOARD】(1/2)
CN600 13P
TO TUNER UNIT
DI
CE
CK
DO
GND
9.5V
FM-7.5V
L-CH
A-GND
R-CH
A.GND
FM-DET
TUNED
R604 220
R603 220
R602 220
R601 220
DO (TUNDO)
CE
CL
DI (TUNDI)
L603 10μH
L602 10μH
R600 220
TD
Q600 2SD1387-34-TP FM+B SWITCH
Q601 DTA114EKA-T146 FM+B SWITCH
Q602 DTC124EKA-T146 FM+B SWITCH
R605 1.5k
D601 UDZSTE-178.2B
*3 R617 10K:US, CND, E12, E32, SP, MX, EA 33K:AUS
*2 R609,612,618 10k(EXCEPT AUS) 33k(AUS)
*1 R606,607 5.1k(EXCEPT AUS) 5.6k(AUS)
IC600 INPUT SEL
IC B/D
IC600 MC14052 BDR2
Q603 DTC124EKA-T146 SWITCH
Q604 DTC124EKA-T146 SWITCH
US, CND
US, CND, E12, E32 SP, MX, EA
CN601 29P
RDATA
RCLK
TUNDO
TUNDIN
TUNSTE
TUNCE
TUNCLK
D.GND
D.IN
D.GND
D.OUT
D.GND
VSEL1
VSEL2
VMUTE
ASEL1
ASEL2
AUMUTE
FM-ON
DGND
L
A.GND
R
A.GND
R.IN
A.GND
L.IN
10V
10V
F
TO DVD BOARD (4/9) CN002 (Page 42)
TO TUNER PACK TP1
Q711 2SK680A-T1 SWITCH
Q714 DTC124EKA-T146 SWITCH
D612 MA111-TX
D611 MA111-TX
J600 6P
AUDIO 1
OUT
IN
AUDIO 2
Q605 DTC343TK-T-146 MUTE
Q606 DTC343TK-T-146 MUTE
IC601 5V REG
IC601 KIA7805API
IC602
IC602 IC TORX178B
OPTICAL DIGITAL IN
L601 10μH
No mark:FM
< >:DVD
TO I/O BOARD (2/2) (Page 54)

5-21. Schematic Diagram – I/O Section (2/2) – • See page 31 for Wavefoms.


1
2
3
4
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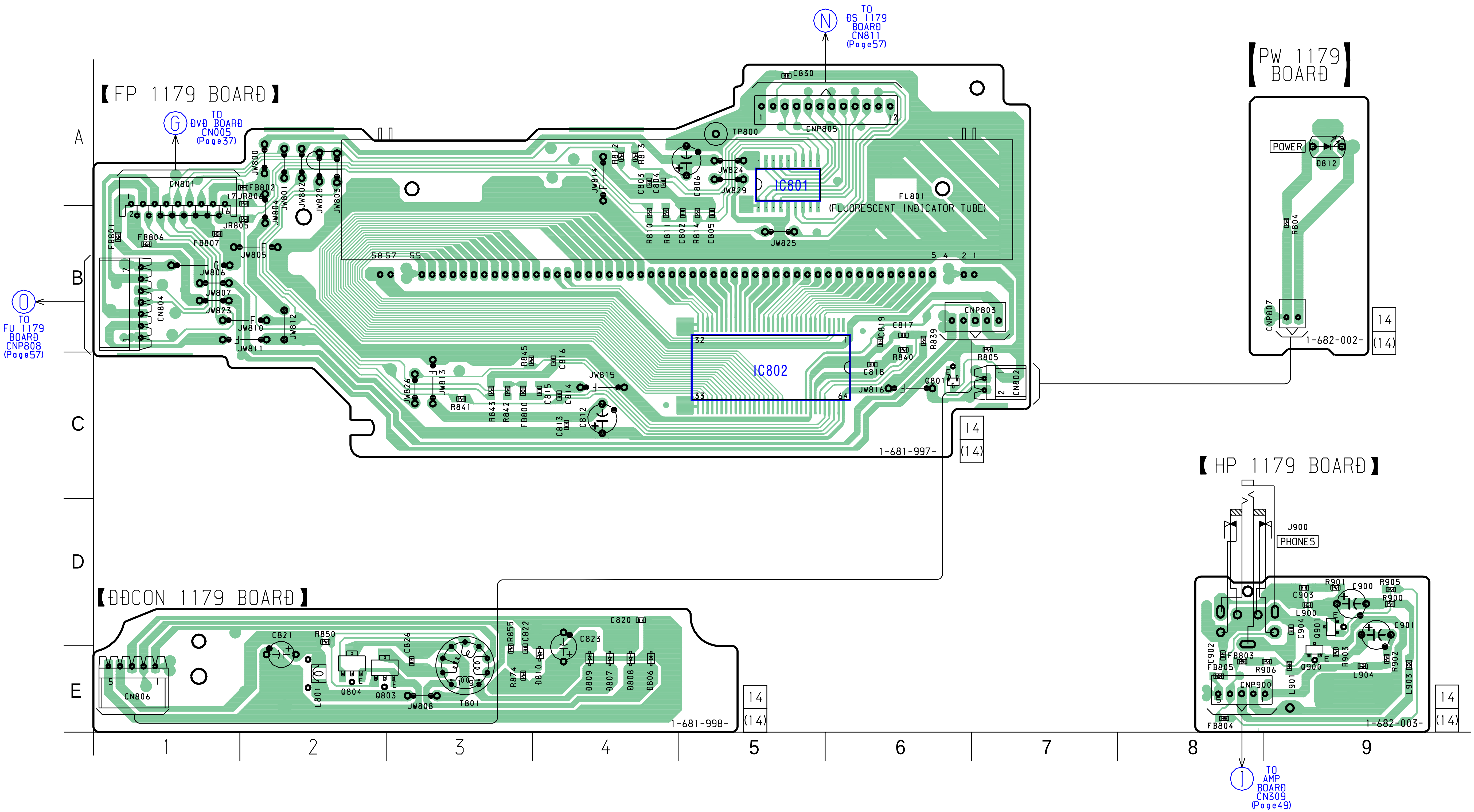
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
A
B
C
D
E
F
G
H
I
J
【 COMPONENT BOARD 】
【 I/O BOARD 】(2/2)
J666 3P
COMPONENT VIDEO OUT
PR/CR
PB/CB
Y
IC703
VIDEO AMP
IC703 BA7660FS-E2
CNP702
CN701 7P
D5V
WIDE
GND
Y
CR
CM
CB
FB615 0UH
FB614 0UH
IC701
VIDEO AMP
IC701 BA7666FS-E2
IC702
OUTPUT SEL
IC702 NJM2285V-TE2
J700 2P
VIDEO
MONITOR OUT
S VIDEO (DVD ONLY)
Q701 DTA114EKA-T146 OFFSET SWITCH
Q704 DTC144EKA-T146 OFFSET SWITCH
Q700 2SA1037AK-T146-R BUFFER
Q702 2SC2712-GL-TE85L BUFFER
Q703 2SC2712-GL-TE85L BUFFER
TO I/O BOARD (1/2) (Page 53)
CN700 13P
CM
CB
GND
CR
D5V
D5V
GND
VIDEOV
GND
VIDEOY
GND
VIDEOC
VS
E
TO DVD BOARD (4/9) CN003 (Page 42)
FB612 0
FB613 0
FB601 0UH
L708 15uH
L710 15uH
L700 15u
L703 15u
L705 15u
L707 10uH
L702 10uH
No mark:FM
< >:DVD
14
15
16
17
18
19

5-22. Printed Wiring Board – FRONT Section – • See page 30 for Circuit Boards Location.

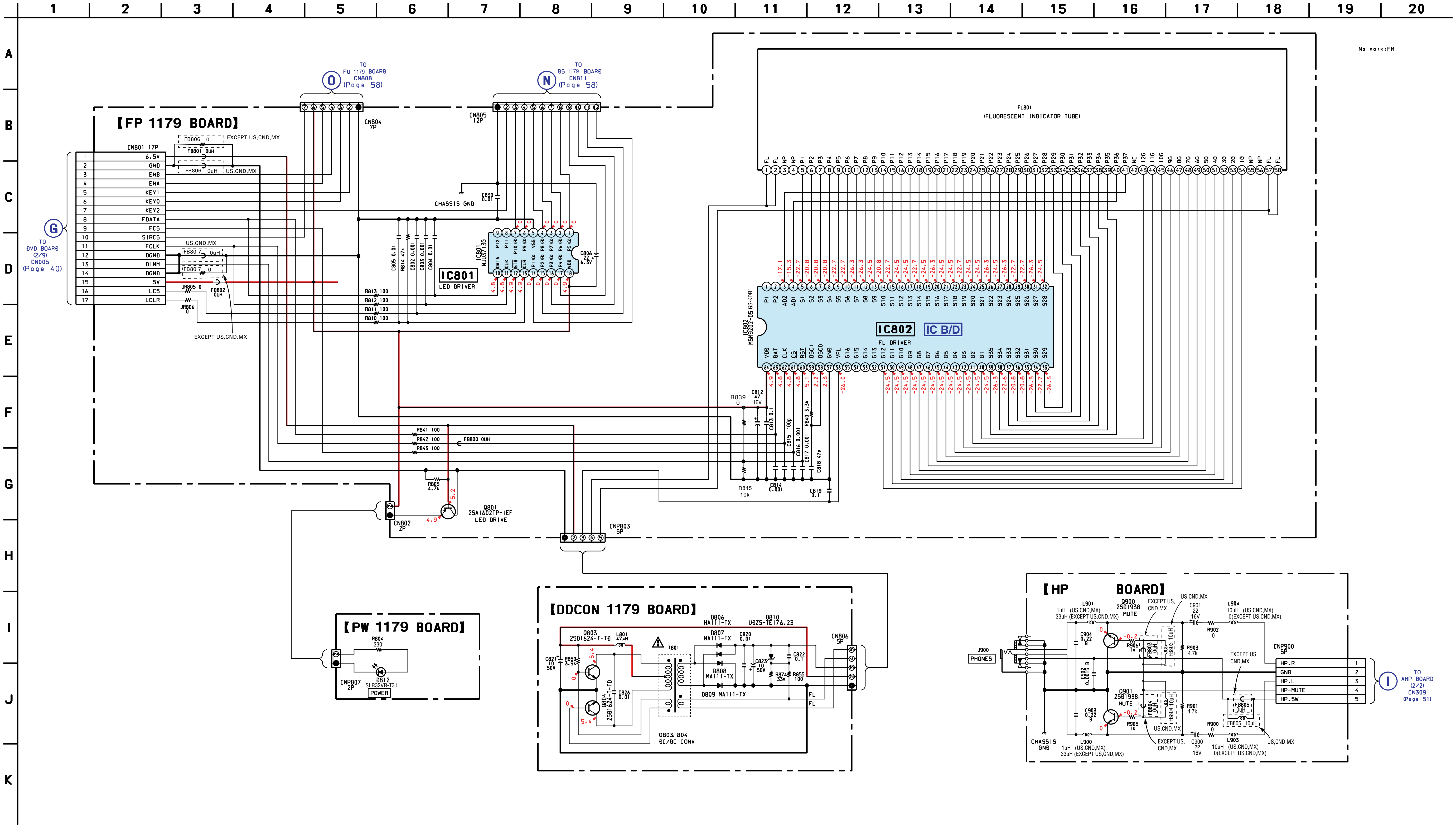

FP 1179 BOARD
G
TO DVD BOARD CN005 (Page37)
N
TO DS 1179 BOARD CN811 (Page57)
O
TO FU 1179 BOARD CNP808 (Page57)
I
TO AMP BOARD CN309 (Page49)
PW 1179 BOARD
POWER
D812
R804
CNP807
1-682-002-
HP 1179 BOARD
J900
PHONES
1-682-003-
DDCON 1179 BOARD
1-681-998-
1-681-997-
14
(14)
CN801
CN804
CNP805
CNP803
CN802
CN806
CNP900
IC801
IC802
FL801
(FLUORESCENT INDICATOR TUBE)
TP800
C830
Q801
Q803
Q804
Q900
Q901
T801
L801
D806
D807
D808
D809
D810
A
B
C
D
E
1
2
3
4
5
6
7
8
9

• Semiconductor Location

Ref. No.	Location
D806	A-4
D807	A-4
D808	A-4
D809	A-4
D810	A-4
Q803	A-2
Q804	A-2

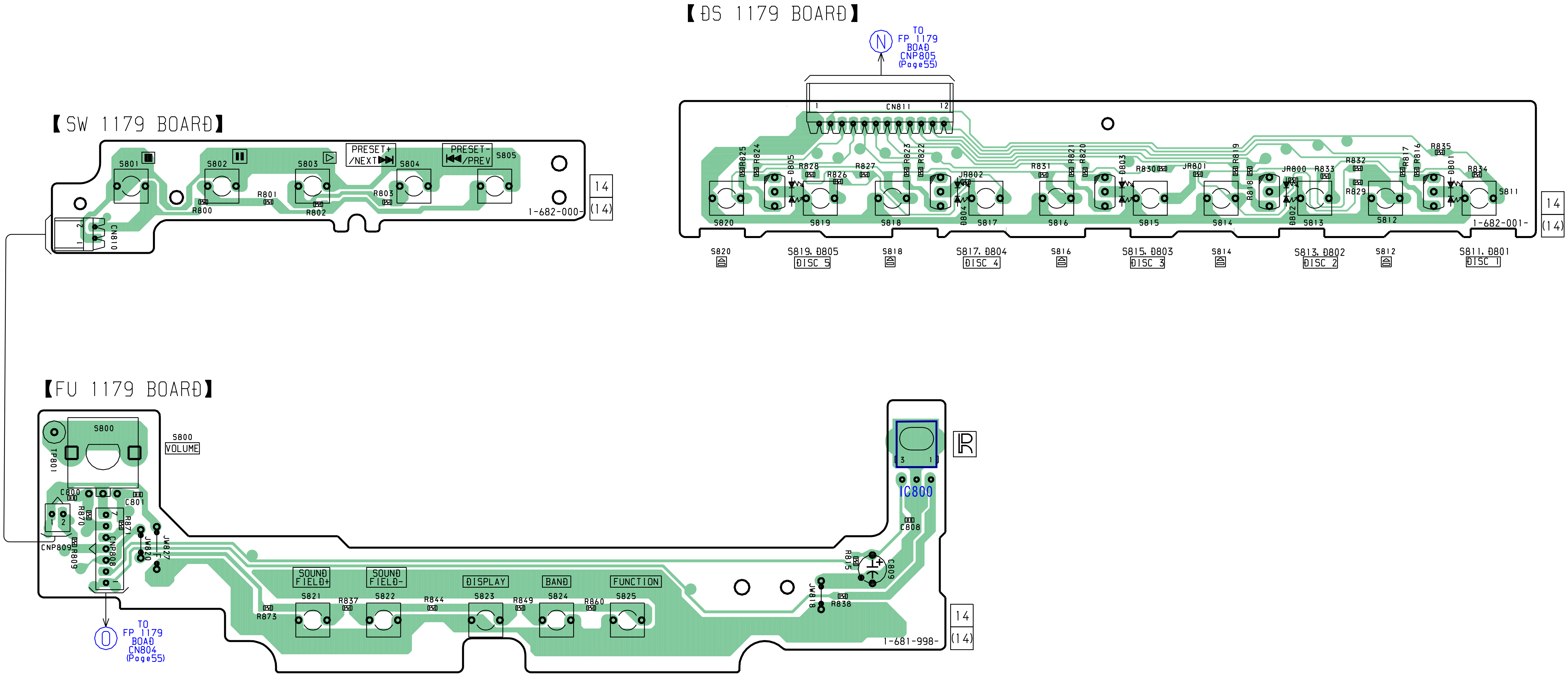
5-23. Schematic Diagram – FRONT Section –

• See page 64 for IC Block Diagrams.

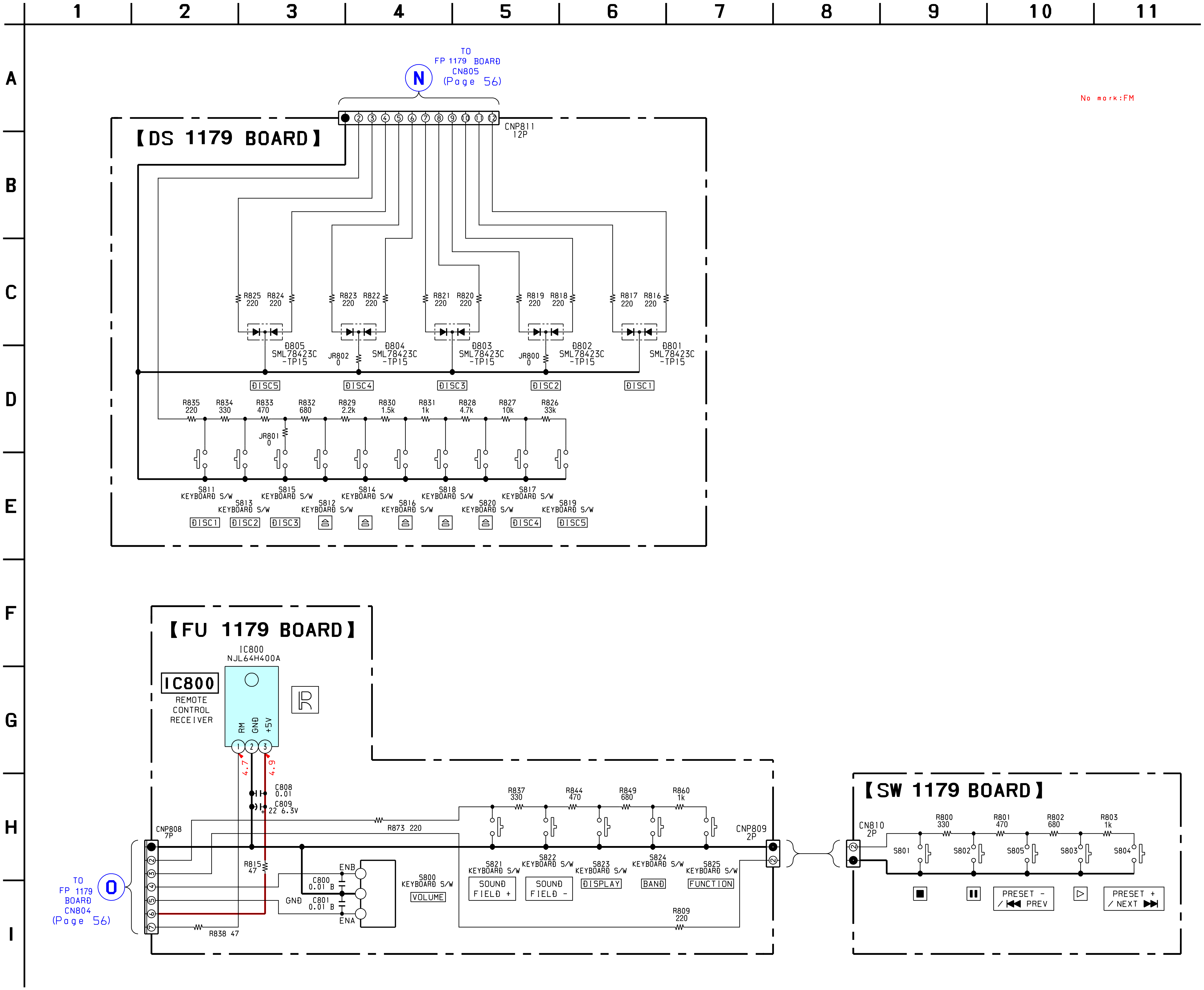


No mark:FM
【FP 1179 BOARD】
CN801 17P
6.5V
GND
ENB
ENA
KEY1
KEY0
KEY2
FDATA
FCS
SIRCS
FCLK
DGND
DIMM
DGND
5V
LCS
LCLR
G
TO DVD BOARD (2/3) CN005 (Page 40)
O
TO FU 1179 BOARD CN808 (Page 58)
N
TO DS 1179 BOARD CN811 (Page 58)
CN804 7P
CN805 12P
FB806 0
EXCEPT US,CND,MX
FB801 0UH
FB806 0UH US,CND,MX
US,CND,MX
FB807 0UH
FB807 0
FB802 0UH
JR805 0
JR806 0
EXCEPT US,CND,MX
CHASSIS GND
C830 0.01
IC801
NJU3715G
LED DRIVER
C806 22 6.3V
R813 100
R812 100
R811 100
R810 100
R841 100
R842 100
R843 100
FB800 0UH
R805 4.7k
Q801 2SA1602TP-IEF LED DRIVE
CN802 2P
CNP803 5P
FL801 (FLUORESCENT INDICATOR TUBE)
IC802 M5M92020-05 GS-KDR1
IC802 IC B/D
FL DRIVER
R839 0
C812 47 16V
C813 0.1
C815 100p
C816 0.001
C817 0.001
C818 47p
R840 3.3k
R845 10k
C814 0.001
C819 0.1
【PW 1179 BOARD】
R804 330
D812 SLR32VR-T31
POWER
CNP807 2P
【DDCON 1179 BOARD】
Q803 2SD1624-T-TD
L801 47μH
Q804 2SD1624-T-TD
T801
D806 MA111-TX
D807 MA111-TX
D808 MA111-TX
D809 MA111-TX
D810 UDZS-TE17 6.2B
C820 0.01
C821 10 50V
C822 0.1
C823 10 50V
C826 0.01
R850 3.9k
R874 33k
R855 100
CN806 5P
Q803, 804 DC/DC CONV
FL
【HP BOARD】
L901 1uH (US,CND,MX) 33uH (EXCEPT US,CND,MX)
Q900 2SD1938 MUTE
Q901 2SD1938 MUTE
EXCEPT US, CND,MX
C901 22 16V
C900 22 16V
L904 10uH (US,CND,MX) 0(EXCEPT US,CND,MX)
L903 10uH (US,CND,MX) 0(EXCEPT US,CND,MX)
R902 0
R903 4.7k
R901 4.7k
R900 0
R905 1k
R906 1k
C904 0.22 B
C903 0.22 B
C902 0.0047 B
J900 PHONES
CNP900 5P
HP.R
GND
HP.L
HP-MUTE
HP.SW
FB805 10uH
L900 1uH (US,CND,MX) 33uH (EXCEPT US,CND,MX)
CHASSIS GND
US,CND,MX
I
TO AMP BOARD (2/2) CN309 (Page 51)

5-24. Printed Wiring Board – SW Section – • See page 30 for Circuit Boards Location.


【DS 1179 BOARD】
N
TO FP 1179 BOAD CNP805 (Page55)
CN811
1
12
R825
R824
D805
R828
R826
R827
R823
R822
JR802
R831
R821
R820
D803
R830
JR801
R819
R818
JR800
R833
R832
R829
R817
R816
R835
D801
R834
S811
D804
D802
S820
S819
S818
S817
S816
S815
S814
S813
S812
1-682-001-
14
(14)
S820
S819, D805
DISC 5
S818
S817, D804
DISC 4
S816
S815, D803
DISC 3
S814
S813, D802
DISC 2
S812
S811, D801
DISC 1
【SW 1179 BOARD】
S801
S802
S803
PRESET+ /NEXT
S804
PRESET- /PREV
S805
R800
R801
R802
R803
CN810
1-682-000-
14
(14)
【FU 1179 BOARD】
S800
TP801
S800
VOLUME
C800
C801
R870
R871
CNP809
R809
CNP808
JW828
JW827
SOUND FIELD+
S821
SOUND FIELD-
S822
DISPLAY
S823
BAND
S824
FUNCTION
S825
R873
R837
R844
R849
R860
O
TO FP 1179 BOAD CN804 (Page55)
IC800
3
1
C808
R865
C809
JW818
R838
1-681-998-
14
(14)

5-25. Schematic Diagram – SW Section –


1
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9
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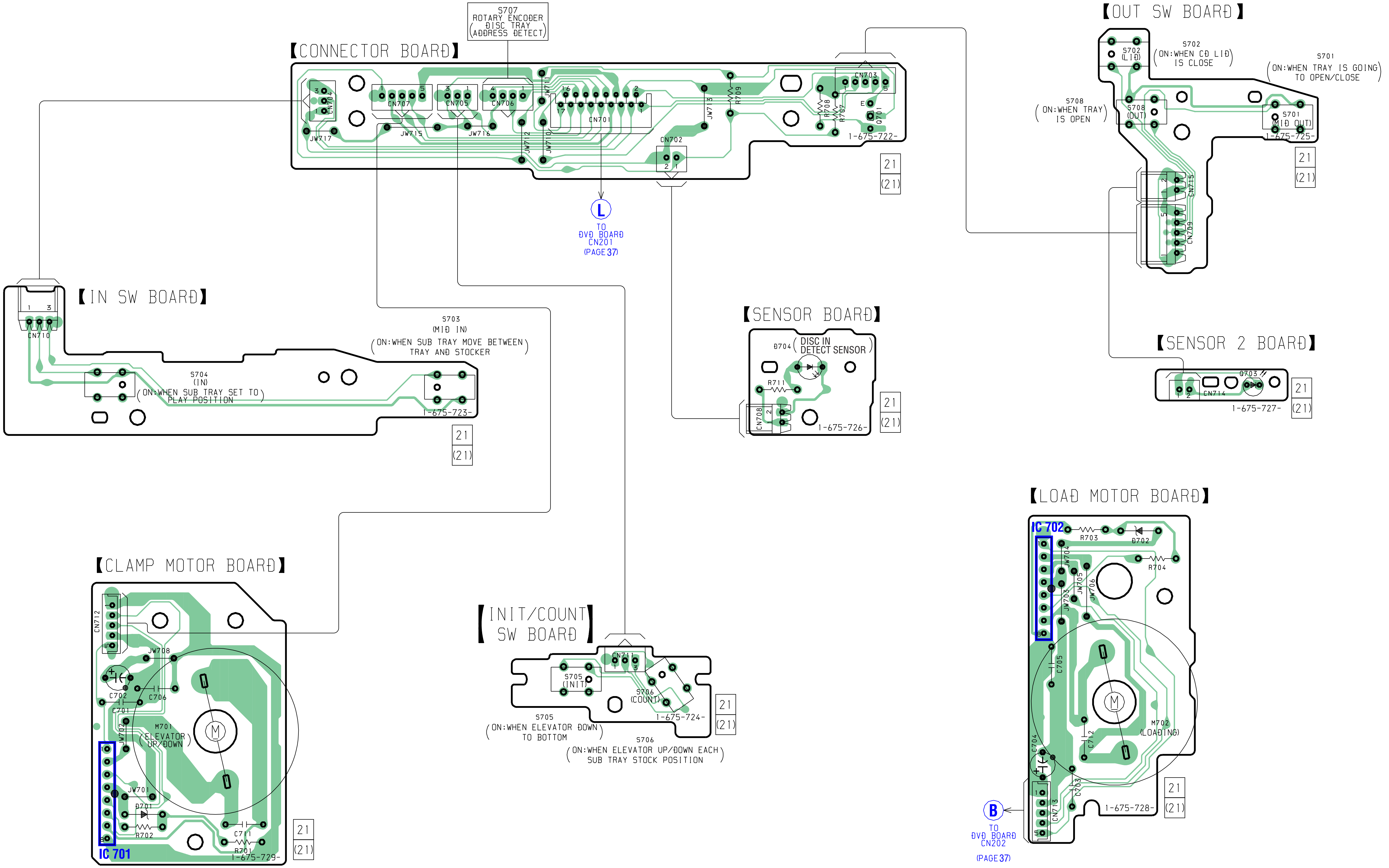
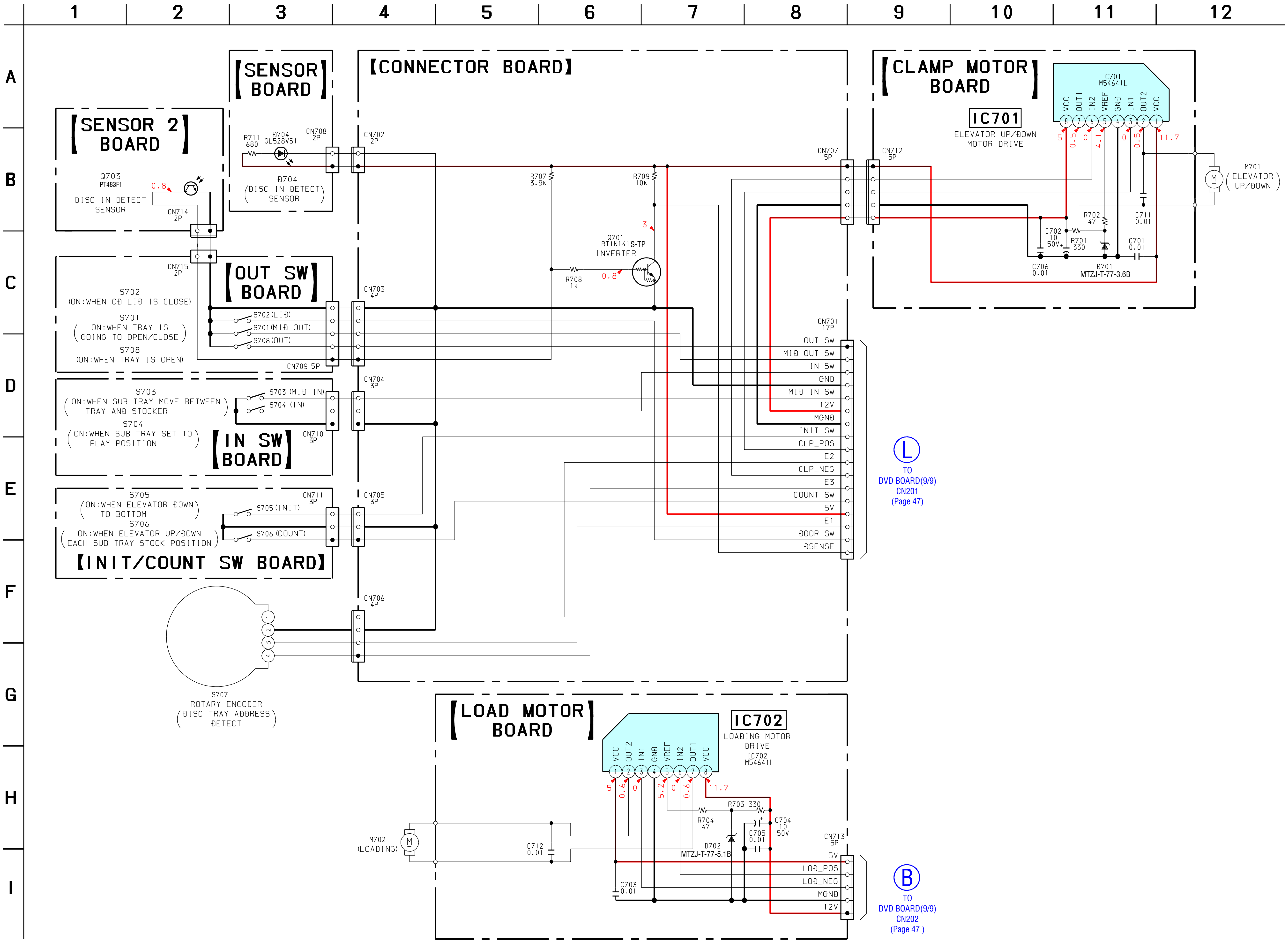
11
A
B
C
D
E
F
G
H
I
No mark:FM
TO
FP 1179 BOARD
CN805
(Page 56)
N
【DS 1179 BOARD】
CNP811
12P
R825 220
R824 220
R823 220
R822 220
R821 220
R820 220
R819 220
R818 220
R817 220
R816 220
D805 SML78423C -TP15
D804 SML78423C -TP15
D803 SML78423C -TP15
D802 SML78423C -TP15
D801 SML78423C -TP15
JR802 0
JR800 0
DISC5
DISC4
DISC3
DISC2
DISC1
R835 220
R834 330
R833 470
R832 680
R829 2.2k
R830 1.5k
R831 1k
R828 4.7k
R827 10k
R826 33k
JR801 0
S811 KEYBOARD S/W
S813 KEYBOARD S/W
S815 KEYBOARD S/W
S812 KEYBOARD S/W
S814 KEYBOARD S/W
S816 KEYBOARD S/W
S818 KEYBOARD S/W
S820 KEYBOARD S/W
S817 KEYBOARD S/W
S819 KEYBOARD S/W
DISC1
DISC2
DISC3
DISC4
DISC5
【FU 1179 BOARD】
IC800
NJL64H400A
IC800
REMOTE CONTROL RECEIVER
RM
GND
+5V
4.7
4.9
C808 0.01
C809 22 6.3V
R873 220
R815 47
ENB
ENA
GND
C800 0.01 B
C801 0.01 B
S800 KEYBOARD S/W
VOLUME
CNP808 7P
R838 47
TO
FP 1179 BOARD
CN804
(Page 56)
O
R837 330
R844 470
R849 680
R860 1k
CNP809 2P
S821 KEYBOARD S/W
S822 KEYBOARD S/W
S823 KEYBOARD S/W
S824 KEYBOARD S/W
S825 KEYBOARD S/W
SOUND FIELD +
SOUND FIELD -
DISPLAY
BAND
FUNCTION
R809 220
【SW 1179 BOARD】
CN810 2P
R800 330
R801 470
R802 680
R803 1k
S801
S802
S805
S803
S804
■
❚❚
PRESET - / ⏮ PREV
▷
PRESET + / NEXT ⏭

5-26. Printed Wiring Board – CDM Section – • See page 30 for Circuit Boards Location.


S707
ROTARY ENCODER
DISC TRAY
ADDRESS DETECT
【CONNECTOR BOARD】
CN704
CN707
CN705
CN706
CN701
CN702
CN703
JW717
JW715
JW716
JW711
JW712
JW710
JW713
R709
R708
R707
Q701
E
1-675-722-
21
(21)
L
TO
DVD BOARD
CN201
(PAGE 37)
【OUT SW BOARD】
S702
(LID)
(ON:WHEN CD LID IS CLOSE)
S701
(ON:WHEN TRAY IS GOING TO OPEN/CLOSE)
S708
(ON:WHEN TRAY IS OPEN)
S708
(OUT)
S701
(MID OUT)
1-675-725-
CN715
CN709
21
(21)
【IN SW BOARD】
CN710
S703
(MID IN)
(ON:WHEN SUB TRAY MOVE BETWEEN TRAY AND STOCKER)
S704
(IN)
(ON:WHEN SUB TRAY SET TO PLAY POSITION)
1-675-723-
21
(21)
【SENSOR BOARD】
D704
(DISC IN DETECT SENSOR)
R711
CN708
1-675-726-
21
(21)
【SENSOR 2 BOARD】
D703
CN714
1-675-727-
21
(21)
【LOAD MOTOR BOARD】
IC 702
R703
D702
R704
JW704
JW705
JW703
JW706
C705
C712
C704
C703
M702
(LOADING)
CN713
1-675-728-
21
(21)
B
TO
DVD BOARD
CN202
(PAGE 37)
【CLAMP MOTOR BOARD】
CN712
JW708
C702
C706
C701
JW702
M701
(ELEVATOR UP/DOWN)
JW701
D701
R702
C711
R701
IC 701
1-675-729-
21
(21)
【INIT/COUNT SW BOARD】
CN711
S705
(INIT)
S706
(COUNT)
1-675-724-
S705
(ON:WHEN ELEVATOR DOWN TO BOTTOM)
S706
(ON:WHEN ELEVATOR UP/DOWN EACH SUB TRAY STOCK POSITION)
21
(21)

5-27. Schematic Diagram – CDM Section –


1
2
3
4
5
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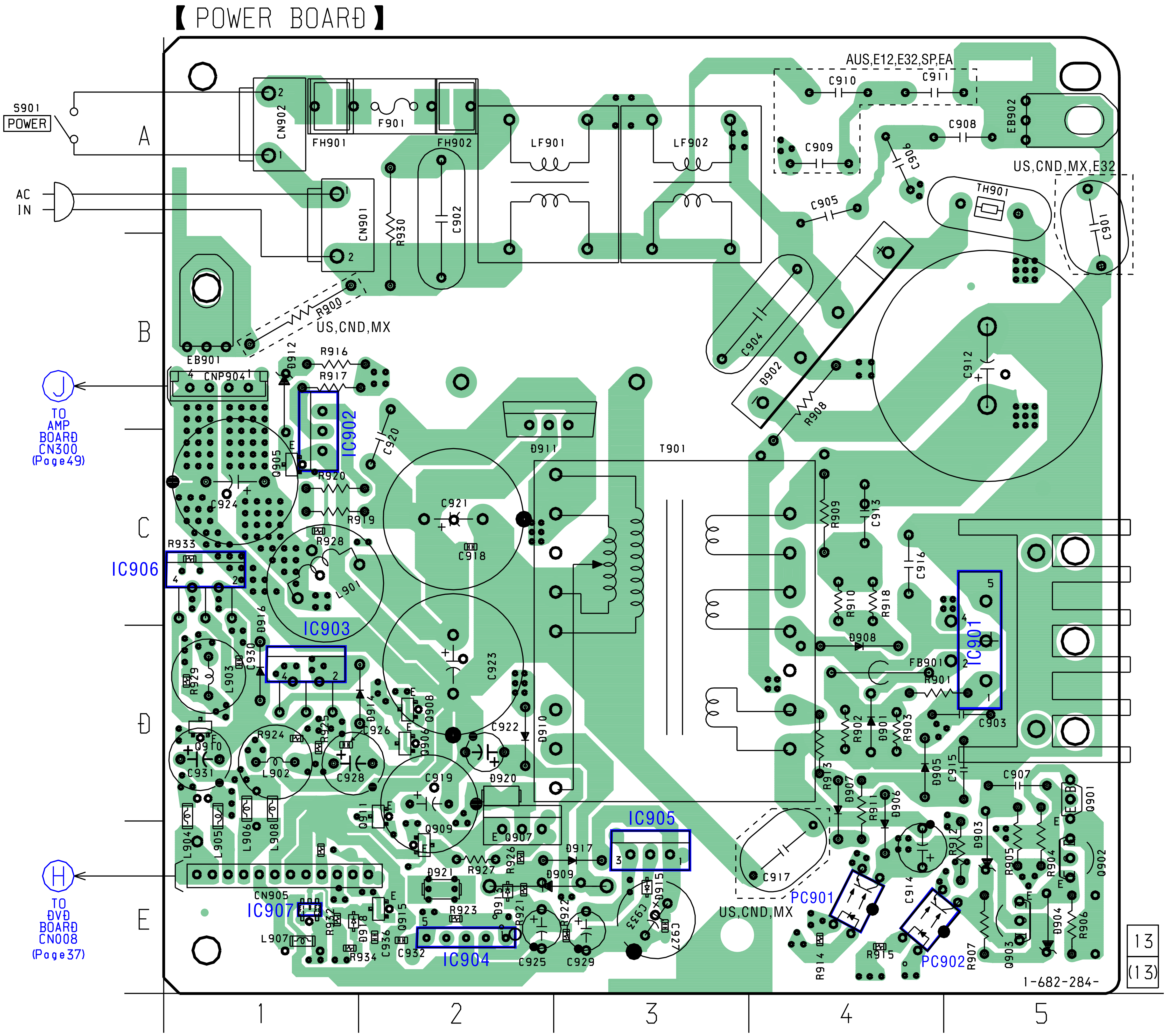
7
8
9
10
11
12
A
B
C
D
E
F
G
H
I
SENSOR 2 BOARD
Q703
PT483F1
DISC IN DETECT SENSOR
0.8
CN714
2P
SENSOR BOARD
R711
680
D704
GL528VS1
CN708
2P
D704
DISC IN DETECT SENSOR
CONNECTOR BOARD
CN702
2P
R707
3.9k
R709
10k
CN707
5P
3
Q701
RT1N141S-TP
INVERTER
R708
1k
0.8
CN715
2P
S702
(ON:WHEN CD LID IS CLOSE)
S701
ON:WHEN TRAY IS GOING TO OPEN/CLOSE
S708
(ON:WHEN TRAY IS OPEN)
OUT SW BOARD
S702(LID)
S701(MID OUT)
S708(OUT)
CN703
4P
CN709 5P
S703
ON:WHEN SUB TRAY MOVE BETWEEN TRAY AND STOCKER
S704
ON:WHEN SUB TRAY SET TO PLAY POSITION
S703 (MID IN)
S704 (IN)
CN704
3P
IN SW BOARD
CN710
3P
S705
ON:WHEN ELEVATOR DOWN TO BOTTOM
S706
ON:WHEN ELEVATOR UP/DOWN EACH SUB TRAY STOCK POSITION
CN711
3P
S705(INIT)
S706 (COUNT)
CN705
3P
INIT/COUNT SW BOARD
CN706
4P
1
2
3
4
S707
ROTARY ENCODER
DISC TRAY ADDRESS DETECT
CN701
17P
OUT SW
MID OUT SW
IN SW
GND
MID IN SW
12V
MGND
INIT SW
CLP_POS
E2
CLP_NEG
E3
COUNT SW
5V
E1
DOOR SW
DSENSE
L
TO
DVD BOARD(9/9)
CN201
(Page 47)
CLAMP MOTOR BOARD
IC701
M54641L
VCC
OUT1
IN2
VREF
GND
IN1
OUT2
VCC
8
7
6
5
4
3
2
1
5
0.5
0
4.1
0
0.5
11.7
IC701
ELEVATOR UP/DOWN MOTOR DRIVE
CN712
5P
M701
ELEVATOR UP/DOWN
M
R702
47
C711
0.01
C702
10
50V
R701
330
C701
0.01
C706
0.01
D701
MTZJ-T-77-3.6B
LOAD MOTOR BOARD
IC702
LOADING MOTOR DRIVE
IC702
M54641L
VCC
OUT2
IN1
GND
VREF
IN2
OUT1
VCC
1
2
3
4
5
6
7
8
5
0.6
0
5.2
0
0.6
11.7
R703 330
R704
47
C704
10
50V
C705
0.01
D702
MTZJ-T-77-5.1B
CN713
5P
5V
LOD_POS
LOD_NEG
MGND
12V
M702
(LOADING)
M
C712
0.01
C703
0.01
B
TO
DVD BOARD(9/9)
CN202
(Page 47)

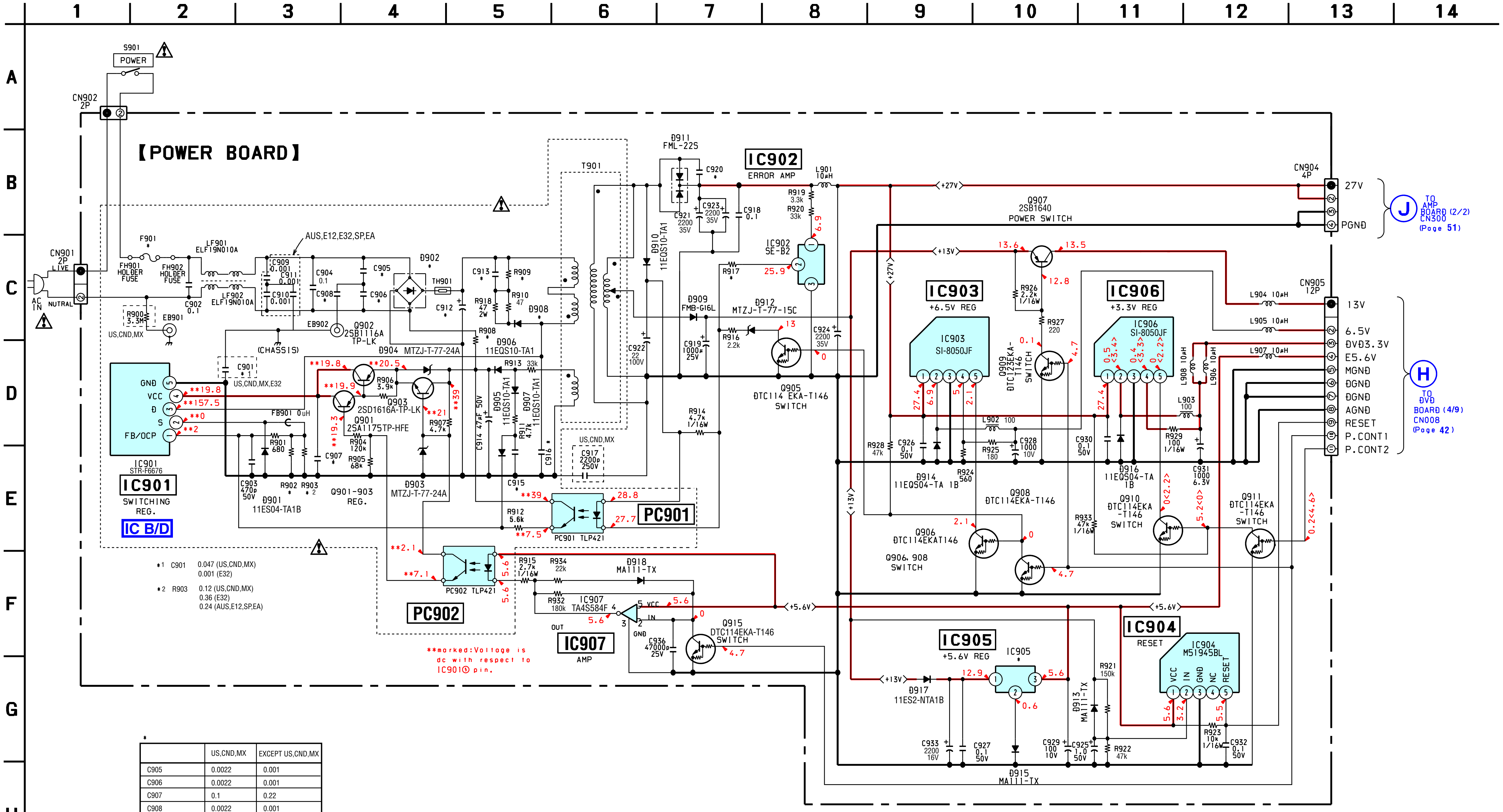
5-28. Printed Wiring Board – POWER Board – • See page 30 for Circuit Boards Location.


【POWER BOARD】
S901
POWER
AC IN
A
B
C
D
E
1
2
3
4
5
J
TO AMP BOARD CN300 (Page49)
H
TO DVD BOARD CN008 (Page37)
CN902
FH901
F901
FH902
CN901
R930
C902
LF901
LF902
AUS,E12,E32,SP,EA
C910
C911
C908
C909
C903
EB902
US,CND,MX,E32
TH901
C905
C901
R900
US,CND,MX
EB901
CNP904
D912
R916
R917
IC902
C920
C904
D902
R908
C912
D911
T901
D905
R920
R919
C924
C921
C918
R928
R933
IC906
L901
IC903
D916
R929
L903
C930
C923
R909
C913
C916
R910
R918
D908
FB901
R901
IC901
C903
R924
R925
D914
C926
Q908
Q906
C922
D910
R902
D901
R903
Q910
C931
L902
C928
C919
D920
D913
R911
D906
D907
D905
C915
C907
Q901
L904
L905
L906
L908
Q911
Q909
Q907
R926
R927
D921
D917
D909
IC905
C917
Q903
Q902
R905
R904
CN905
IC907
L907
R932
D918
C936
D915
R923
R934
C932
IC904
R921
R922
C925
C929
C933
C927
PC901
C914
R914
R915
PC902
R907
Q905
D904
R906
D903
R912
R913
US,CND,MX
13
(13)
1-682-284-

• Semiconductor Location

Ref. No.	Location
D901	D-4
D902	B-4
D903	E-5
D904	E-5
D905	D-4
D906	D-4
D907	D-4
D908	D-4
D909	E-2
D910	D-2
D911	B-2
D912	B-1
D913	E-2
D914	D-2
D915	E-3
D916	D-1
D917	E-3
D918	E-1
IC901	D-5
IC902	B-1
IC903	D-1
IC904	E-2
IC905	E-3
IC906	C-1
IC907	E-1
Q901	D-5
Q902	E-5
Q903	E-5
Q905	C-1
Q906	D-2
Q907	E-2
Q908	D-2
Q909	E-2
Q910	D-1
Q911	D-2
Q915	E-2

5-29. Schematic Diagram – POWER Board – • See page 64 for IC Block Diagrams.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11
12
13
14
A
B
C
D
E
F
G
H
I
【POWER BOARD】
S901
POWER
CN902
2P
CN901
2P
LIVE
NUTRAL
AC IN
F901
FH901 HOLDER FUSE
FH902 HOLDER FUSE
LF901 ELF19N010A
LF902 ELF19N010A
R900 3.3M
US,CND,MX
EB901
EB902
C902 0.1
AUS,E12,E32,SP,EA
C909 0.001
C911 0.001
C910 0.001
C904 0.1
C908
C905
C906
D902
TH901
C912
C913
R909
R910 47
R918 47 2W
D908
R908
D906 11EQS10-TA1
D904 MTZJ-T-77-24A
Q902 2SB1116A TP-LK
(CHASSIS)
C901
US,CND,MX,E32
Q903 2SD1616A-TP-LK
Q901 2SA1175TP-HFE
R906 3.9k
R907 4.7k
R904 120k
R905 68k
R901 680
FB901 0uH
C907
C903 470p 50V
R902
R903
D901 11ES04-TA1B
Q901-903 REG.
D903 MTZJ-T-77-24A
C914 47μF 50V
D905 11EQS10-TA1
D907 11EQS10-TA1
R911 4.7k
R913 33k
C915
C916
C917 2200p 250V
US,CND,MX
GND
VCC
D
S
FB/OCP
IC901
STR-F6676
IC901
SWITCHING REG.
IC B/D
T901
D911 FML-22S
C920
C921 2200 35V
C923 2200 35V
C918 0.1
IC902
ERROR AMP
L901 10μH
R919 3.3k
R920 33k
IC902 SE-B2
R917
D910 11EQS10-TA1
D909 FMB-G16L
D912 MTZJ-T-77-15C
R916 2.2k
C922 22 100V
C919 1000μ 25V
C924 2200 35V
Q905 DTC114 EKA-T146 SWITCH
R914 4.7k 1/16W
R912 5.6k
PC901
PC901 TLP421
PC902
PC902 TLP421
R915 2.7k 1/16W
R934 22k
D918 MA111-TX
R932 180k
IC907 TA4S584F
IC907
AMP
VCC
IN
OUT
GND
C936 47000p 25V
Q915 DTC114EKA-T146 SWITCH
**marked:Voltage is dc with respect to IC901① pin.
+27V
+13V
+5.6V
Q907 2SB1640 POWER SWITCH
R926 2.2k 1/16W
R927 220
Q909 DTC114EKA-T146 SWITCH
IC903
+6.5V REG
IC903 SI-8050JF
IC906
+3.3V REG
IC906 SI-8050JF
R928 47k
C926 0.1 50V
L902 100
R925 180
C928 1000 10V
R924 560
D914 11EQS04-TA 1B
C930 0.1 50V
D916 11EQS04-TA 1B
L908 10μH
L906 10μH
L903 100
R929 100 1/16W
C931 1000 6.3V
Q908 DTC114EKA-T146
Q906 DTC114EKAT146
Q906, 908 SWITCH
R933 47k 1/16W
Q910 DTC114EKA-T146 SWITCH
Q911 DTC114EKA-T146 SWITCH
L904 10μH
L905 10μH
L907 10μH
CN904 4P
27V
PGND
J
TO AMP BOARD (2/2) CN300 (Page 51)
CN905 12P
13V
6.5V
DVD3.3V
E5.6V
MGND
DGND
DGND
AGND
RESET
P.CONT1
P.CONT2
H
TO DVD BOARD (4/9) CN008 (Page 42)
IC905
+5.6V REG
IC905
D917 11ES2-NTA1B
IC904
RESET
IC904 M51945BL
VCC
IN
GND
NC
RESET
R921 150k
D913 MA111-TX
C933 2200 16V
C927 0.1 50V
C929 100 10V
C925 1.0 50V
R922 47k
R923 10k 1/16W
C932 0.1 50V
D915 MA111-TX

*1 C901 0.047 (US,CND,MX)
0.001 (E32)

*2 R903 0.12 (US,CND,MX)
0.36 (E32)
0.24 (AUS,E12,SP,EA)

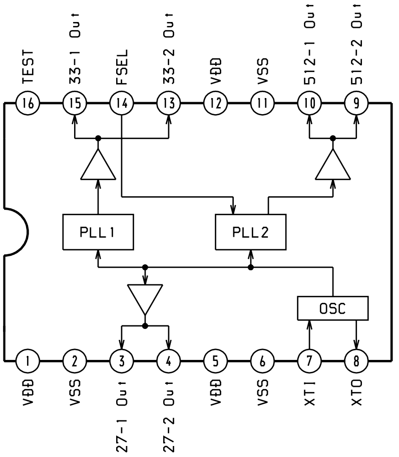
**marked: Voltage is dc with respect to IC901① pin.

*

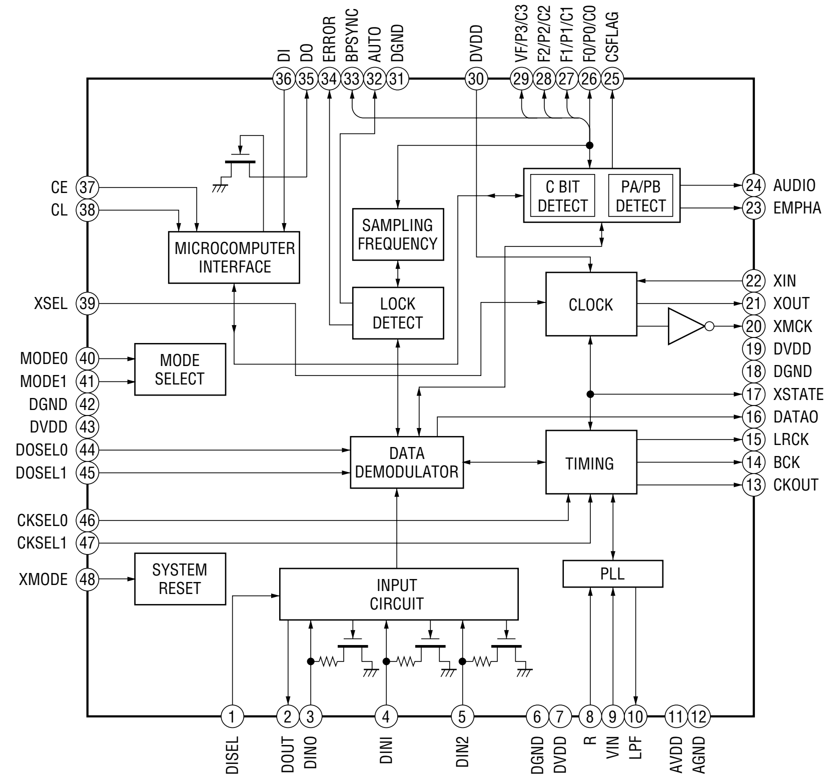
	US,CND,MX	EXCEPT US,CND,MX
C905	0.0022	0.001
C906	0.0022	0.001
C907	0.1	0.22
C908	0.0022	0.001
C912	820/200V	390/450V
C913	0.01	0.0033
C915	220p	680p
C916	4700p	0.001
C920	0.01	0.001
D902	RBV-604	RBV-606
D908	SARS02-V1	SARS01-V0
F901	5A/125V	T3.15A/250V
IC905	TA78055	BA05T
R902	0.1	0.22
R908	33k	100k
R909	68k	560k
R917	1.8k	2.7k
F901	5A/125V	3.15A/250V

5-30. IC Block Diagrams

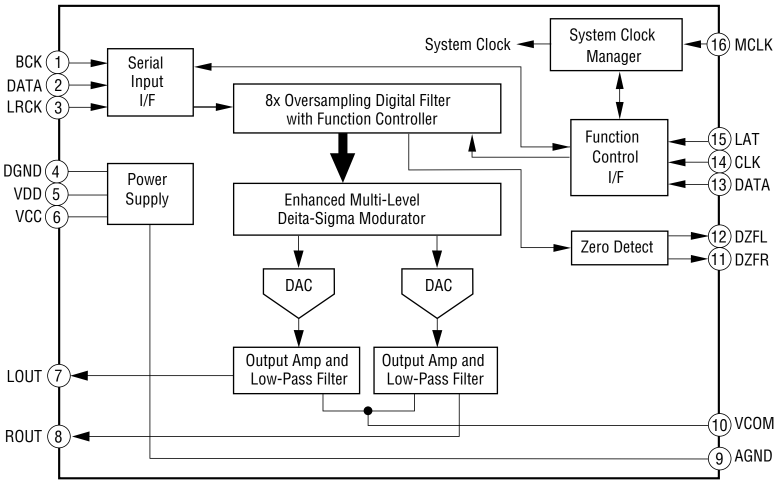
IC102 SM8707-G-E2 (DVD BOARD)


TEST
33-1 Out
FSEL
33-2 Out
VDD
VSS
512-1 Out
512-2 Out
16
15
14
13
12
11
10
9
PLL1
PLL2
OSC
1
2
3
4
5
6
7
8
VDD
VSS
27-1 Out
27-2 Out
VDD
VSS
XTI
XTO

IC606 LC89056W-E (DVD BOARD)


DI
DO
ERROR
BPSYNC
AUTO
DGND
DVDD
VF/P3/C3
F2/P2/C2
F1/P1/C1
F0/P0/C0
CSFLAG
36
35
34
33
32
31
30
29
28
27
26
25
CE 37
CL 38
XSEL 39
MODE0 40
MODE1 41
DGND 42
DVDD 43
DOSEL0 44
DOSEL1 45
CKSEL0 46
CKSEL1 47
XMODE 48
MICROCOMPUTER INTERFACE
SAMPLING FREQUENCY
LOCK DETECT
C BIT DETECT
PA/PB DETECT
CLOCK
MODE SELECT
DATA DEMODULATOR
TIMING
SYSTEM RESET
INPUT CIRCUIT
PLL
24 AUDIO
23 EMPHA
22 XIN
21 XOUT
20 XMCK
19 DVDD
18 DGND
17 XSTATE
16 DATAO
15 LRCK
14 BCK
13 CKOUT
1
2
3
4
5
6
7
8
9
10
11
12
DISEL
DOUT
DINO
DIN1
DIN2
DGND
DVDD
R
VIN
LPF
AVDD
AGND

IC608 PCM1748E/2K (DVD BOARD)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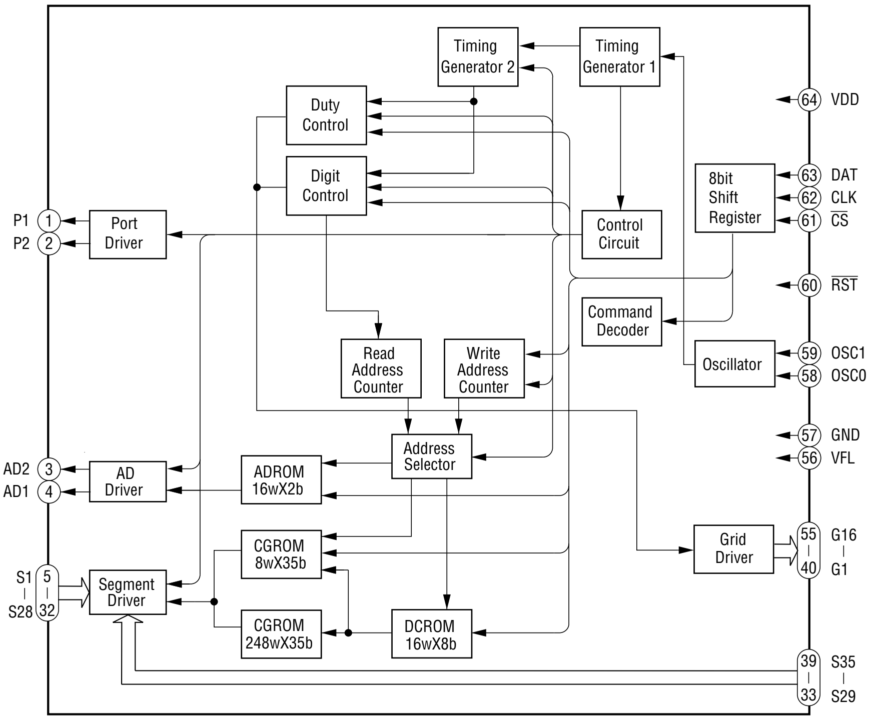
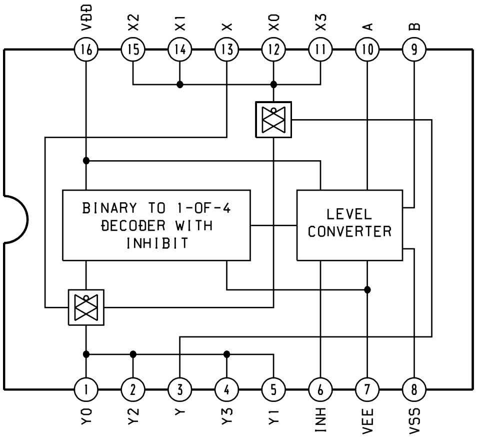
DATA 2
LRCK 3
DGND 4
VDD 5
VCC 6
LOUT 7
ROUT 8
Serial Input I/F
Power Supply
8x Oversampling Digital Filter with Function Controller
Enhanced Multi-Level Deita-Sigma Modurator
DAC
DAC
Output Amp and Low-Pass Filter
Output Amp and Low-Pass Filter
System Clock
System Clock Manager
Function Control I/F
Zero Detect
16 MCLK
15 LAT
14 CLK
13 DATA
12 DZFL
11 DZFR
10 VCOM
9 AGND

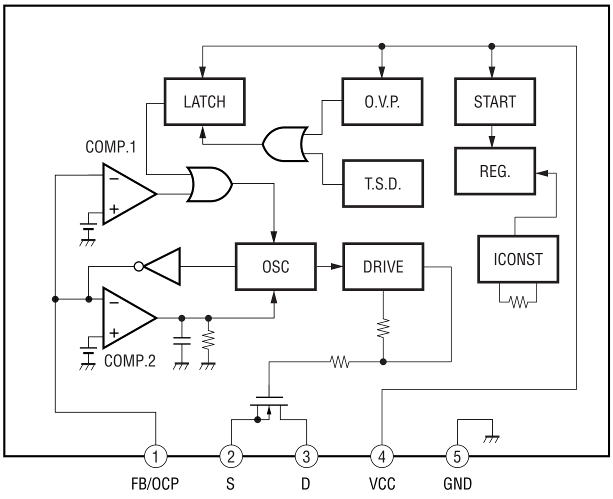
IC802 MSM9202-05GS-KDR1 (FP 1179 BOARD)


Timing Generator 2
Timing Generator 1
Duty Control
Digit Control
8bit Shift Register
Control Circuit
Port Driver
Command Decoder
Read Address Counter
Write Address Counter
Oscillator
Address Selector
ADROM 16wX2b
AD Driver
CGROM 8wX35b
CGROM 248wX35b
DCROM 16wX8b
Segment Driver
Grid Driver
P1 1
P2 2
AD2 3
AD1 4
S1 5
S28 32
64 VDD
63 DAT
62 CLK
61 CS
60 RST
59 OSC1
58 OSC0
57 GND
56 VFL
55 G16
40 G1
39 S35
33 S29

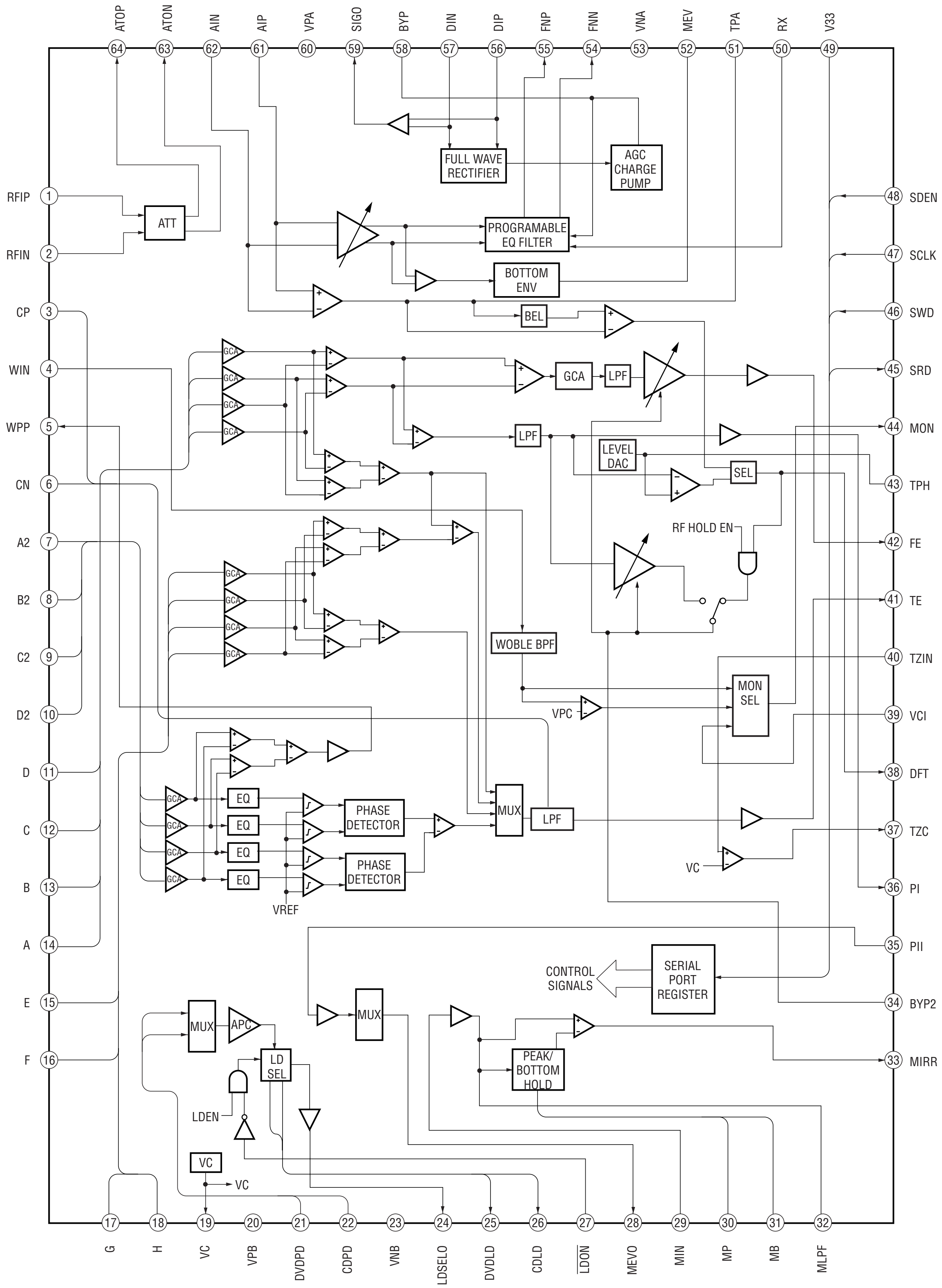
IC600 MC14052BDR2 (I/O BOARD)


VDD X2 X1 X X0 X3 A B
16 15 14 13 12 11 10 9
BINARY TO 1-OF-4 DECODER WITH INHIBIT
LEVEL CONVERTER
1 2 3 4 5 6 7 8
Y0 Y2 Y Y3 Y1 INH VEE VSS

IC901 STR-F6676 (POWER BOARD)


LATCH
O.V.P.
START
T.S.D.
REG.
COMP.1
OSC
DRIVE
ICONST
COMP.2
1 FB/OCP
2 S
3 D
4 VCC
5 GND

IC001 SP3728AC (RF-240 BOARD)


ATOP 64
ATON 63
AIN 62
AIP 61
VPA 60
SIGO 59
BYP 58
DIN 57
DIP 56
FNP 55
FNN 54
VNA 53
MEV 52
TPA 51
RX 50
V33 49
RFIP 1
RFIN 2
CP 3
WIN 4
WPP 5
CN 6
A2 7
B2 8
C2 9
D2 10
D 11
C 12
B 13
A 14
E 15
F 16
48 SDEN
47 SCLK
46 SWD
45 SRD
44 MON
43 TPH
42 FE
41 TE
40 TZIN
39 VCI
38 DFT
37 TZC
36 PI
35 PII
34 BYP2
33 MIRR
17 G
18 H
19 VC
20 VPB
21 DVDPD
22 CDPD
23 VNB
24 LDSELO
25 DVDLD
26 CDLD
27 LDON
28 MEVO
29 MIN
30 MP
31 MB
32 MLPF
ATT
FULL WAVE RECTIFIER
AGC CHARGE PUMP
PROGRAMABLE EQ FILTER
BOTTOM ENV
BEL
GCA
LPF
LEVEL DAC
SEL
RF HOLD EN
WOBLE BPF
MON SEL
VPC
EQ
PHASE DETECTOR
PHASE DETECTOR
MUX
LPF
VREF
VC
CONTROL SIGNALS
SERIAL PORT REGISTER
MUX
MUX
APC
LD SEL
LDEN
PEAK/ BOTTOM HOLD
VC
VC

5-31. IC Pin Function Descriptions

• IC103 MB91307APFV-G-BND-E1 (SYSTEM CONTROL) (DVD BOARD)

Pin No.	Pin Name	I/O	Description
1 to 5	HA17 - 21	O	Address signal output
6	HA22	O	Address signal output (Not used)
7	WP	O	I2C EEPROM write protect signal output
8	TRM/XKRCS	O	Chip select signal output to IC801(CXD2752R)
9	AVCC	–	Analog power supply
10	AVRH	–	A/D converter reference voltage supply
11	AVSS	–	Analog ground
12	AN0	I	Region setting input
13	AN1	I	Model setting input
14	AN2	I	Destination setting input
15	AN3	I	Not used (pull-up)
16	INT0	I	Interrupt signal input from IC503(AV Decoder)
17	INT1	I	Interrupt signal input from IC302(CXD9635R/ARP)
18	INT2	I	Interrupt signal input from IC302(CXD9635R/SDSP)
19	INT3	I	FGA interrupt signal input
20	INT4	I	Interrupt signal input from IC901(CPU)
21	INT5	I	Interrupt signal input from IC801(CXD2752R)
22	INT6	O	Soft mute control signal output to IC801(CXD2752R)
23	INT7	–	Not used
24	VCC	–	Power supply
25	SI0	I	Serial data input from IC901(CPU)
26	SO0	O	Serial data output to IC901(CPU)
27	SC0	O	Serial clock output to IC901(CPU)
28	SI1	I	Serial data input from IC801(CXD2752R)
29	SO1	O	Serial data output to IC801(CXD2752R)
30	SC1	O	Serial clock output to IC801(CXD2752R)
31	SI2	I	RS-232C data input for debugging
32	SO2	O	RS-232C data output for debugging
33	SC2	O	RS-232C clock input or output for debugging (Not used)
34	VSS	–	Ground
35	XRST	O	System reset signal output
36	XARPRST	O	Reset signal output to IC302(CXD9635R/ARP)
37	RGBSEL/MICMUTE	–	Not used
38	SDA	I/O	I2C data input or output
39	SCL	O	I2C clock output
40	TRM+/XKRRST	O	Data request selection signal output (DVD : L, SACD : H)
41	EUROV/Y/CLPSW1	–	Not used
42	DISCEXT/CLPSW0	–	Not used
43	MD0	–	Operation mode setting (connected to Vcc)
44	MD1	–	Operation mode setting (connected to Ground)
45	MD2	–	Operation mode setting (connected to Ground)
46	DREQ0	I	DMA-REQ1 signal input
47	DACK0	O	DMA-ACK1 signal output
48	XDRVMUTE	O	Drive mute control signal output to IC401
49	DREQ1	I	DMA-REQ0 signal input
50	DACK1	O	DMA-ACK0 signal output
51	XIFCS	O	Chip select signal output to IC901(CPU)
52	VSS	–	Ground
53	X1	–	Clock (oscillator) output
54	X0	–	Clock (oscillator) input

Pin No.	Pin Name	I/O	Description
55	VCC	–	Power supply
56	CKSW1	I	Chucking switch (Tray SW1) signal input
57	OCSW1	I	Open/Close switch (Tray SW2) signal input
58	CS0X	O	Chip select signal output to external ROM
59	CS1X	–	Not used
60	CS2X	O	Chip select signal output to AVD SDRAM
61	CS3X	O	Chip select signal output to AVD R-BUS
62	CS4X	O	Chip select signal output to IC302(CXD8635R/ARP)
63	CS5X	O	Chip select signal output to IC302(CXD8635R/SDSP)
64	C	–	Terminal for built-in regulator bypass capacitor
65	CS6X	O	FGA CS output
66	CS7X	–	Not used
67	XWAIT	I	external WAIT signal input
68	BGRNTX	I	External bus open aclnowledge signal input (pull-up)
69	BRQ	I	External bus open request signal input (Not used)
70	XRD	O	External bus read enable signal output
71	XWRH	O	Write signal output for upper byte
72	XWRL	O	Write signal output for lower byte (Not used)
73	XMIX	–	Not used
74	HSTX	–	Not used (pull-up)
75	VSS	–	Ground
76	XFRRST	I	Reset signal input
77	CPUCK	O	CPU clock output
78	OCSW2	I	Tray switch signal input
79	XDACK	–	Not used (pull-up)
80	VESCS/X39CS	–	Not used (pull-up)
81	48/44.1K	O	PLL IC control signal output
82	WIDE	O	Video wide offset control signal output
83	MAMUTE	I	IFOK signal input from IC901(CPU)
84	XLDON	O	Laser diode mute control signal output
85 to 100	HD0 -15	I/O	External data bus bits 0 - 15
101	VSS	–	Ground
102 to 109	HA0 - 7	O	Address signal output
110	VCC	–	Power supply
111 to 118	HA8 - 15	O	Address signal output
119	VSS	–	Ground
120	HA16	O	Address signal output

- **IC302 CXD9635R (SERVO DSP) (DVD BOARD)**

Pin No.	Pin Name	I/O	Description
1	VSS	–	Digital Ground
2	D0	I/O	CPU data
3	D1	I/O	
4	D2	I/O	
5	D3	I/O	
6	D4	I/O	
7	D5	I/O	
8	D6	I/O	
9	D7	I/O	
10	VDD 3.3V	–	Digital power supply 3.3V
11	A0	I	CPU address
12	A1	I	
13	A2	I	
14	A3	I	
15	A4	I	
16	VDD	–	Digital Ground
17	A5	I	CPU address
18	A6	I	
19	A7	I	
20	VDD 1.8V	–	Digital power supply 1.8V
21	XINT	O	Interrupt
22	HINT	O	Host interrupt(DSP)
23	XCS	I	Tip select
24	HCS	I	Host servo tip select
25	XWAT	O	Wait
26	VSS	–	Digital Ground
27	MA0	O	DRAM address
28	MA1	O	
29	MA2	O	
30	MA3	O	
31	MA4	O	
32	MA5	O	
33	MA6	O	
34	MA7	O	
35	MA8	O	
36	MA9	O	
37	VDD 3.3V	–	Digital power supply 3.3V
38	XMWR	O	DRAM write enable
39	XCAS	O	DRAM CAS
40	VSS	–	Digital Ground
41	XRAS	O	DRAM RAS
42	XOE	O	DRAM output enable
43	VDD1 1.8V	–	Digital power supply 1.8V
44	MD0	I/O	DRAM data
45	MD1	I/O	
46	MD2	I/O	
47	MD3	I/O	
48	MD4	I/O	
49	MD5	I/O	
50	MD6	I/O	

Pin No.	Pin Name	I/O	Description
51	MD7	I/O	DRAM data
52	VSS	–	Digital Ground
53	MD8	I/O	DRAM data
54	MD9	I/O	
55	MD10	I/O	
56	MD11	I/O	
57	MD12	I/O	
58	MD13	I/O	
59	MD14	I/O	
60	MD15	I/O	
61	VDD 3.3V	–	Digital power supply 3.3V
62	DATA	O	CDDA data
63	BCLK	O	CDDA bit clock
64	VSS	–	Digital Ground
65	LRCK	O	CDDA LR clock
66	DOUT	O	Digital out
67	VDD 1.8V	–	Digital power supply 1.8V
68	SDCK	O	SD bus clock
69	XSHD	O	SD bus header
70	XSRQ	I/O	SD bus REQ
71	XSAK	O	SD bus ACK
72	SDEF	O	SD bus error flag
73	SD0	I/O	SD bus data
74	SD1	I/O	
75	SD2	I/O	
76	SD3	I/O	
77	VSS	–	Digital Ground
78	SD4	I/O	SD bus data
79	SD5	I/O	
80	SD6	I/O	
81	SD7	I/O	
82	VDD 3.3V	–	Digital power supply 3.3V
83	MNT0	I/O	Monitor bus (83 - 88 : Not used)
84	MNT1	I/O	
85	MNT2	I/O	
86	MNT3	I/O	
87	MNT4	I/O	
88	MNT5	I/O	
89	MNT6	I/O	
90	MNT7	I/O	
91	ESTB	O	Error storbe (Not used)
92	VDD 1.8V	–	Digital power supply 1.8V
93	RFD	I/O	RF digital data in/out
94	VSS	–	Digital Ground
95	PLCKO	O	PLCK output
96	ADO0	O	ADC output
97	ADO1	O	
98	ADO2	O	
99	ADO3	O	
100	ADO4	O	

Pin No.	Pin Name	I/O	Description
101	ADO5	O	ADC output
102	ADO6	O	
103	ADO7	O	
104	VSS	–	Digital Ground
105	VSSA4	–	Analog Ground
106	VCO	I	VCO control input
107	R1	I	VCO outside resistance 1
108	R2	I	VCO outside resistance 2
109	VDDA4 3.3V	–	Analog power supply
110	VSSA3	–	Analog Ground
111	INP	I	OP amp positive input
112	INM	I	OP amp negative input
113	FR3	I	Feedback resistance 3
114	FR2	I	Feedback resistance 2
115	FR1	I	Feedback resistance 1
116	Y	O	OP amp output
117	VDDA3 3.3V	–	Analog power supply
118	VREF	I	DAC reference voltage
119	BIAS	I	DAC bias pin
120	VDDA2 3.3V	–	Analog power supply
121	VSSA2	–	Analog Ground
122	AOUT	O	DAC output
123	IREF	I	Reference current of DAC
124	VSSD2	–	Digital Ground(DAC)
125	VDDD2 3.3V	–	Digital power supply(DAC)
126	VRT	I	ADC reference
127	VDDA1 3.3V	–	Analog power supply
128	RFIN1	I	RF input
129	AIN	I	RF input
130	VSSA1	–	Analog Ground
131	RFIN1	I	RF input
132	VRB	I	ADC reference
133	VSSD1	–	Digital Ground(ADC)
134	VDDD1 3.3V	–	Digital power supply(ADC)
135	ADC0	I	ADC input
136	ADC1	I	
137	ADC2	I	
138	VDDA0 3.3V	–	ASW analog power supply
139	ADC3	I	ADC input
140	ADC4	I	
141	VSSA0	–	ASW analog ground
142	ADC5	I	ADC input
143	ADC6	I	
144	ADC7	I	
145	VDDD0 3.3V	–	ADC digital power supply(DSP)
146	VSSD0	–	ADC digital ground DSP
147	VRBA	I	ADC reference
148	VSSA0	–	Analog ground(ADC)
149	TESTAA	O	ASW output
150	VDDA0 3.3V	–	ADC analog power supply(DSP)

Pin No.	Pin Name	I/O	Description
151	VRTA	I	ADC reference
152	VSS	–	Digital Ground
153	TESTK0	I	Test terminal L
154	TESTK1	I	
155	TESTK2	I	
156	XDSPRST	I	DSP reset
157	XARPRST	I	Reset
158	VSS	–	Digital Ground
159	MDS0	O	CLV speed error
160	MON	O	Motor on
161	MDP0	O	CLV phase error
162	DFCT	I/O	Defect detection output
163	JITPWM	O	Jitter PWM output (Not used)
164	LOCK	O	EFM lock detection (Not used)
165	VDD1 1.8V	–	Digital power supply 1.8V
166	GIO0/INT2	I/O	GIO/external interruption
167	GIO1/INT3	I/O	
168	GIO2/INT4	I/O	
169	GIO3/INT5	I/O	
170	VDD 3.3V	–	Digital power supply 3.3V
171	GIO4/PGREF	I/O	GIO/PGREF input (Not used)
172	GIO5/PGIN	I/O	GIO/PGIN input
173	GIO6/SDI	I/O	GIO/serial data in
174	GIO7/SDO	I/O	GIO/serial data out
175	GIO8/SCK	I/O	GIO/serial clock
176	GIO9/FGREF	I/O	GIO/FGREF input
177	GIO10/FGIN	I/O	GIO/FGIN input
178	GIO11/TMC2	I/O	GIO/Timer 2 clock input (Not used)
179	GIO12	I/O	GIO(input and output) (179 : Not used)
180	GIO13	I/O	
181	VSS	–	Digital Ground
182	CLKIN	I	Clock input
183	VSSA5	–	Analog Ground
184	VDDA5 1.8V	–	Analog power supply
185	DFCTI	I	Defect input
186	VSS	–	Digital Ground
187	MCKI	I	Clock for ECC 33MHz
188	VDD 1.8V	–	Digital power supply 1.8V
189	SCKI	I	System clock
190	VSS	–	Digital Ground
191	TRST	I	JTAG Boundary scan (193 : Not used)
192	TMS	I	
193	TDI	I	
194	TCK	I	
195	TDO	O	
196	TZC	I	TZC input
197	MIRR	I	MIRR input
198	PWM0	O	PWM output
199	PWM1	O	
200	PWM2	O	

Pin No.	Pin Name	I/O	Description
201	VDD 3.3V	–	Digital power supply 3.3V
202	PDM0	O	PDM output
203	PDM1	O	
204	PDM2	O	
205	PDM3	O	
206	VSS	–	Digital Ground
207	XWR	I	CPU light
208	XRD	I	CPU lead

• IC801 CXD2752R (PLAYBACK SIGNAL PROCESSOR) (DVD BOARD)

Pin No.	Pin Name	I/O	Description
1	VSCA0	–	Ground
2	XMSLAT	I	Latch signal input for micom serial communication
3	MSCK	I	Shift clock input for micom serial communication
4	MSDATI	I	Data input for micom serial communication
5	VDCA0	–	Power supply
6	MSDATO	O	Data output for micom serial communication
7	MSREADY	O	Output ready flag output for micom serial communication
8	XMSDOE	O	Output enable signal output for micom serial communication (Not used)
9	XRST	I	Reset signal input
10	SMUTE	I	Soft mute signal input (H:soft mute, L:off)
11	MCKI	I	Master clock input (768Fs 33.8688MHz)
12	VSIOA0	–	Ground for I/O
13	EXCKO1	O	External clock output 1
14	EXCKO2	O	External clock output 2 (Not used)
15	LRCK	O	Clock output (1Fs 44.1kHz)(Not used)
16	F75HZ	O	Frame signal output
17	VDIOA0	–	Power supply for I/O
18 to 25	MNT0 - 7	O	Monitor signal output (Not used)
26	TCK	I	Test clock input (connected to ground)
27	TDI	I	Input terminal for test
28	VSCA1	–	Ground
29	TDO	O	Output terminal for test (open)
30	TMS	I	Input terminal for test (open)
31	TRST	I	Reset terminal for test (open)
32 to 34	TEST1 - 3	I	Input terminal for test (connected to ground)
35	VDCA1	–	Power supply
36	UBIT	O	Output terminal for test (open)
37	XBIT	O	DST monitor terminal (open)
38 to 41	SUPDT0 - 3	O	Supplementary data output (open)
42	VSIOA1	–	Ground for I/O
43, 44	SUPDT4 - 5	O	Supplementary data output (open)
45	VDIOA1	–	Power supply for I/O
46, 47	SUPDT6 - 7	O	Supplementary data output (open)
48	SUPEN	O	Supplementary data acknoledge output (open)
49	VSCA2	–	Ground
50	NC	O	Output terminal for test (open)
51, 52	TEST4 - 5	I	Input terminal for test (connected to ground)
53	NC	O	Output terminal for test (open)
54	VDCA2	–	Power supply
55, 56	NC	O	Output terminal for test (open)
57	BCKASL	I	Bit clock I/O selection signal input for DSD data output (L:slave, H:master)
58	VXDSD0	–	Ground for DSD data output
59	BCKAI	I	Bit clock input for DSD data output (open)
60	BCKAO	O	Bit clock output for DSD data output
61	PHREFI	I	Phase reference signal input for DSD signal phase modulation (open)
62	PHREFO	O	Phase reference signal output for DSD signal phase modulation (open)
63	ZDFL	O	Lch zero data detection flag signal output (open)
64	DSAL	O	Lch DSD data output
65	ZDFR	O	Rch zero data detection flag signal output (open)
66	DSAR	O	Rch DSD data output

Pin No.	Pin Name	I/O	Description
67	VDDSD0	–	Power supply for DSD data output
68	ZDFC	O	Cch zero data detection flag signal output (open)
69	DSAC	O	Cch DSD data output
70	ZDFLFE	O	LFEch zero data detection flag signal output (open)
71	DSALFE	O	LFEch DSD data output
72	VSDSD1	–	Ground for DSD data output
73	ZDFLS	O	LSch zero data detection flag signal output (open)
74	DSALS	O	LSch DSD data output
75	ZDFRS	O	RSch zero data detection flag signal output (open)
76	DSARS	O	RSch DSD data output
77	VDDSD1	–	Power supply for DSD data output
78, 79	IOUT0 - 1	O	Output terminal for test (open)
80	VSCB0	–	Ground
81, 82	IOUT2 - 3	O	Output terminal for test (open)
83	VDCB0	–	Power supply
84, 85	IOUT4 -5	O	Output terminal for test (open)
86	VSIOB0	–	Ground for I/O
87	IANCO	O	Output terminal for test (open)
88	IFULL	I	Input teminal for test (connected to ground)
89	IEMPTY	I	Input teminal for test (connected to ground)
90	VDIOB0	–	Power supply for I/O
91	IFRM	O	Output terminal for test (open)
92	IOUTE	O	Output terminal for test (open)
93	IBCK	O	Output terminal for test (open)
94	VSCB1	–	Ground
95	IERR	I	Input teminal for test (connected to Vdd)
96	IANCI	I	Input teminal for test (connected to ground)
97	IPLAN	I	Input teminal for test (connected to Vdd)
98	IHOLD	O	Output terminal for test (open)
99	VDCB1	–	Power supply
100	IVLD	I	Input teminal for test (connected to ground)
101 to 105	IDIN0 - 4	I	Input teminal for test (connected to ground)
106	VSIOB1	–	Ground for I/O
107 to 109	IDIN5 -7	I	Input teminal for test (connected to ground)
110	VDIOB1	–	Power supply for I/O
111 to 114	WAD0 - 3	I	External A/D data input for PSP physical disc mark detection
115	TESTI	–	Input teminal for test (pull-down)
116	VSCB2	–	Ground
117 to 120	WAD4 - 7	I	External A/D data input for PSP physical disc mark detection
121	VDCB2	–	Power supply
122	WRFD	I	Input teminal for test (connected to ground)
123	WCK	I	Clock input for PSP physical disc mark detection
124 to 125	WAVDD0 - 1	–	A/D power supply for PSP physical disc mark detection (+2.5v)
126	WARFI	I	Analog RF signal input for PSP physical disc mark detection
127	WAVRB	I	A/D bottom reference input for PSP physical disc mark detection
128 to 129	WAVSS1 - 0	–	A/D ground for PSP physical disc mark detection
130	VSIOA2	–	Ground for I/O
131 to 134	DQ7 - 4	I/O	SDRAM data input/output terminal
135	VDIOA2	–	Power supply for I/O (Not used)
136 to 139	DQ3 - 0	I/O	SDRAM data input/output terminal

Pin No.	Pin Name	I/O	Description
140	VSIOA3	–	Ground for I/O (Not used)
141	DCLK	O	Clock output terminal for SDRAM
142	DCKE	O	Clock enable signal output for SDRAM
143	XWE	O	Write enable signal output for SDRAM
144	XCAS	O	Column address strobe signal output for SDRAM
145	XRAS	O	Row address strobe signal output for SDRAM
146	VDIOA3	–	Ground for I/O
147	NC	O	Output terminal for test (open)
148, 149	A11 -10	O	Address signal output for SDRAM
150	VSCA3	–	Ground (Not used)
151, 152	A9 - 8	O	Address signal output for SDRAM
153	VDCA3	–	Power supply
154 to 157	A7 - 4	O	Address signal output for SDRAM
158	VSIOA4	–	Ground for I/O
159 to 162	A3 - 0	O	Address signal output for SDRAM
163	VDIOA4	–	Power supply for I/O
164	XSRQ	O	Data request output to the front end processor
165	XSHD	I	Headder flag input from the front end processor
166	SDCK	I	Data transfer clock input from the front end processor
167	XSAK	I	Data effective flag input from the front end processor
168	SDEF	I	Error flag input from the front end processor
169 to 176	SD0 -7	I	Stream data input from the front end processor

SECTION 6
EXPLODED VIEWS

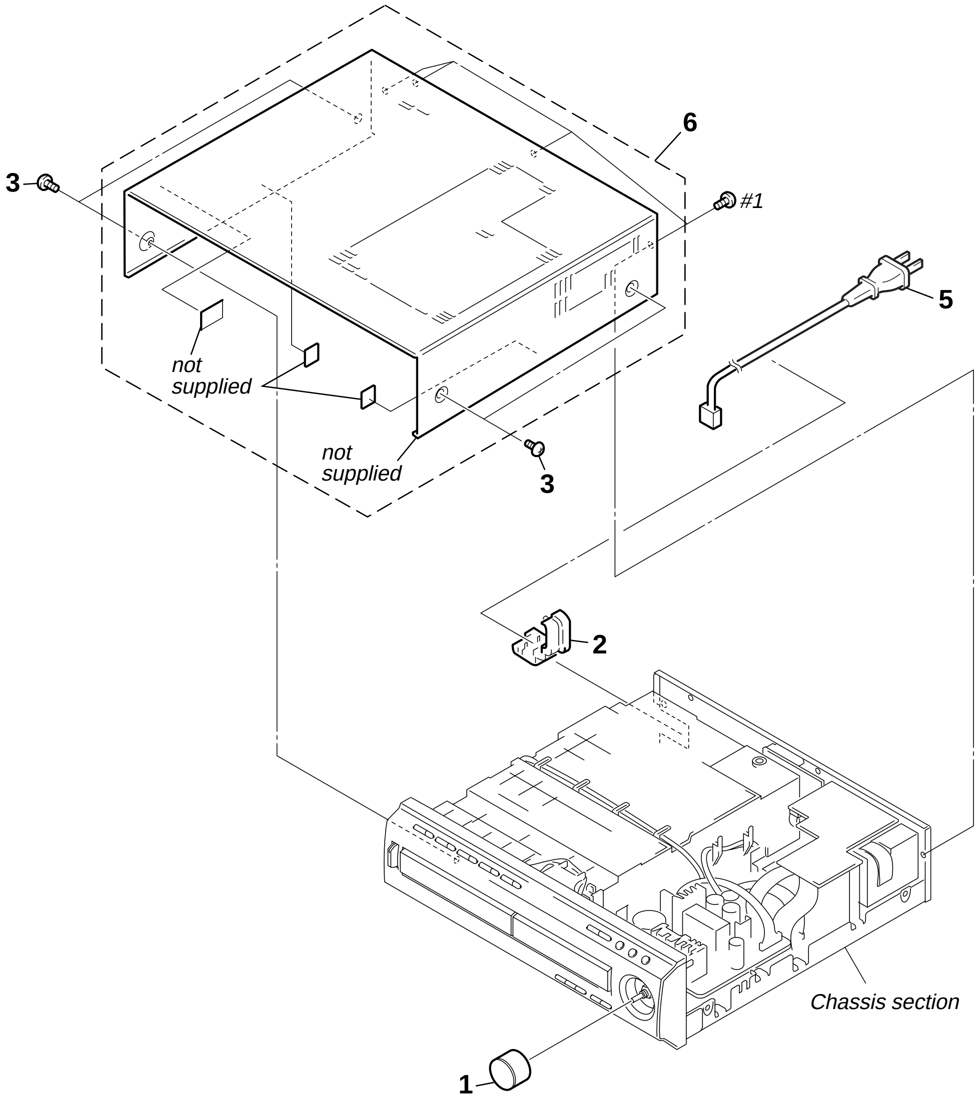
NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Abbreviation
  - AUS : Australian model.
  - CND : Canadian model.
  - E12 : 220V-240V AC in E model.
  - E32 : 110V-240V AC (without VS) in E model.
  - EA : Saudi Arabia model.
  - MX : Mexican model.
  - SP : Singapore model.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

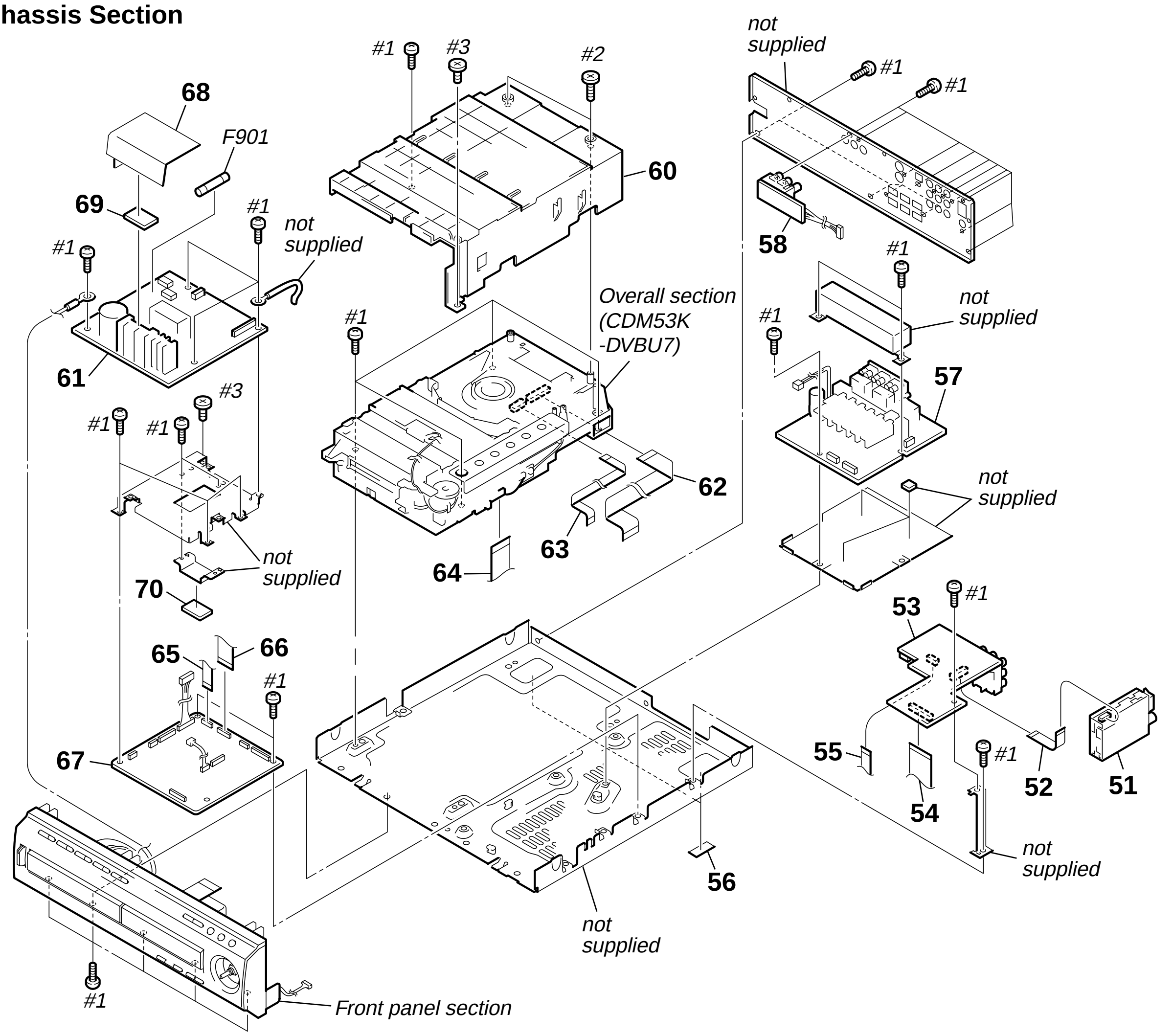
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. Case (Top) Section



Ref. No.	Part No.	Description	Remark
1	4-240-024-01	KNOB VOLUME	
2	4-217-350-11	STOPPER, CORD	
3	4-221-580-01	SCREW, CASE	
⚠5	1-696-169-11	CORD, POWER (EXCEPT US,CND,AUS,MX)	
⚠5	1-696-848-41	CORD, POWER (AUS)	
⚠5	1-783-531-72	CORD, POWER (US, CND)	
⚠5	1-824-090-11	POWER CORD (MX)	
6	X-4954-321-1	CASE SUB ASSY	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

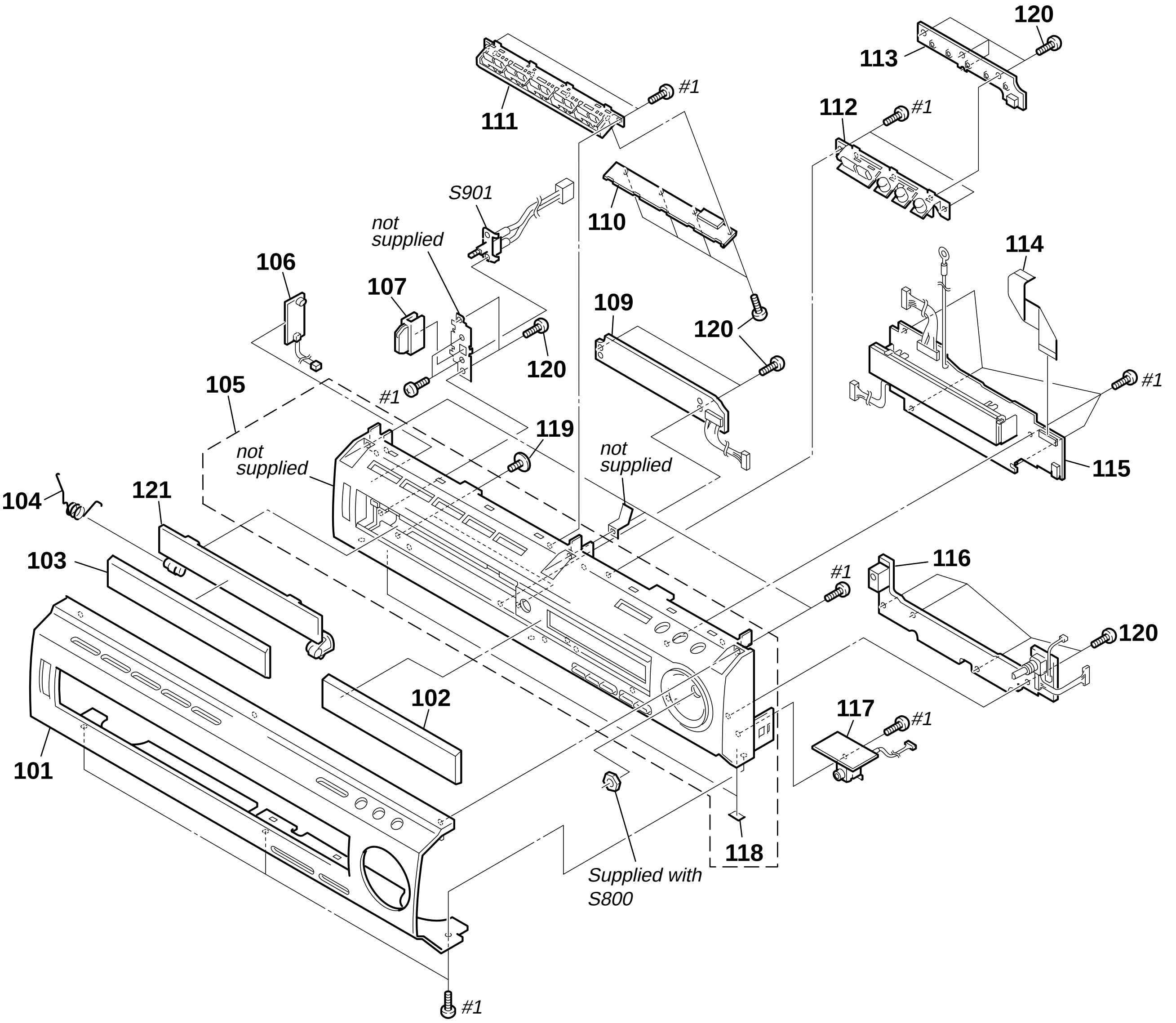
6-2. Chassis Section


#1
#3
#2
not supplied
#1
#1
68
F901
60
69
#1
not supplied
#1
58
#1
Overall section (CDM53K -DVBU7)
#1
not supplied
#1
61
57
#3
#1
#1
62
not supplied
not supplied
63
64
70
53
#1
65
66
#1
67
55
#1
52
51
54
not supplied
56
not supplied
#1
Front panel section

Ref. No.	Part No.	Description	Remark
51	A-4726-404-A	TUNER UNIT (US, CND)	
51	A-4726-588-A	TUNER UNIT (AUS)	
51	A-4726-905-A	TUNER UNIT (EXCEPT US,CND,AUS)	
52	1-823-082-11	CABLE, FLEXIBLE FLAT (13 CORE)	
53	A-4676-746-A	I/O BOARD, COMPLETE (US,CND)	
53	A-4729-822-A	I/O BOARD, COMPLETE (E12,SP,EA)	
53	A-4729-830-A	I/O BOARD, COMPLETE (AUS)	
53	A-4729-845-A	I/O BOARD, COMPLETE (E32,MX)	
54	1-823-124-11	CABLE, FLEXIBLE FLAT (29 CORE)	
55	1-823-355-11	CABLE, FLEXIBLE FLAT (13 CORE)	
56	4-234-924-01	FOOT	
57	A-4729-819-A	AMP BOARD, COMPLETE (EXCEPT US,CND,MX)	
57	A-4676-743-A	AMP BOARD, COMPLETE (US,CND,MX)	
58	1-685-168-11	COMPONENT BOARDA	
60	4-234-933-01	COVER, MD	
61	A-4676-738-A	POWER BOARD, COMPLETE (US,CND)	
61	A-4729-814-A	POWER BOARD, COMPLETE (EXCEPT US,CND,E32,MX)	
61	A-4729-838-A	POWER BOARD, COMPLETE (MX)	
61	A-4729-840-A	POWER BOARD, COMPLETE (E32)	
62	1-823-080-11	CABLE, FLEXIBLE FLAT (25 CORE)	
63	1-823-083-11	CABLE, FLEXIBLE FLAT (9 CORE)	
64	1-823-084-21	CABLE, FLEXIBLE FLAT (17 CORE)	
65	1-823-125-21	CABLE, FLEXIBLE FLAT (12 CORE)	
66	1-823-084-11	CABLE, FLEXIBLE FLAT (17 CORE)	
67	A-4676-740-A	DVD BOARD, COMPLETE (US,CND)	
67	A-4729-816-A	DVD BOARD, COMPLETE (E12)	
67	A-4729-827-A	DVD BOARD, COMPLETE (AUS)	
67	A-4729-832-A	DVD BOARD, COMPLETE (EA)	
67	A-4729-835-A	DVD BOARD, COMPLETE (SP)	
67	A-4729-842-A	DVD BOARD, COMPLETE (E32,MX)	
68	4-237-471-01	COVER (HEAT)	
69	4-237-472-01	COVER, FOOT	
70	4-226-340-01	SHEET, RADIATION	
⚠F901	1-533-453-11	FUSE, GLASS TUBE (DIA. 5) (5A/125V) (US,CND,MX)	
⚠F901	1-533-470-11	FUSE, GLASS TUBE (DIA. 5) (T3.15AL/250V) (EXCEPT US,CND,MX)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-548-14	SCREW +BTP 3X12 TYPE2 N-S	
#3	7-685-545-14	SCREW +BTP 3X6 TYPE2 N-S	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

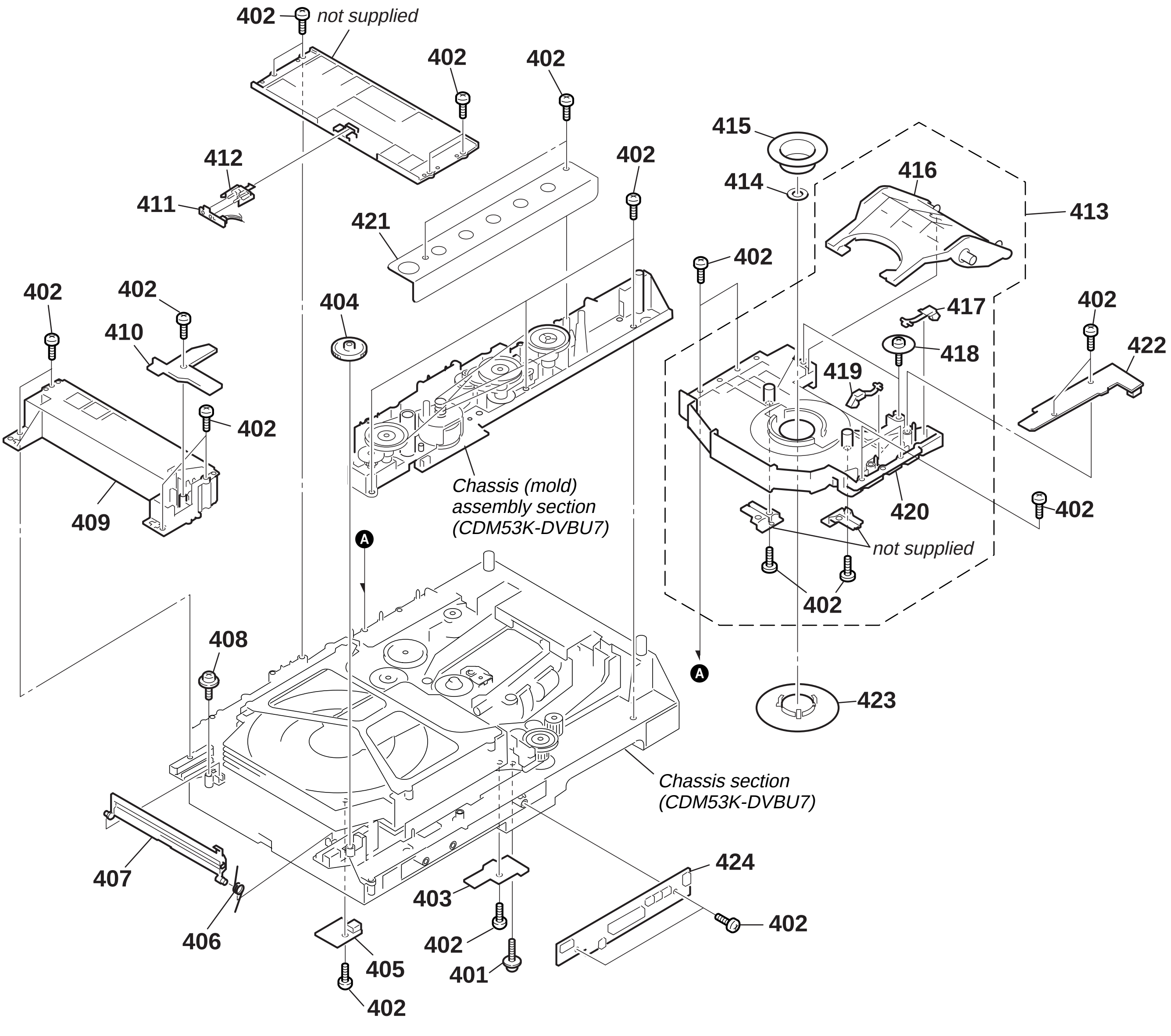
6-3. Front Panel Section


120
113
#1
111
112
#1
S901
not supplied
110
114
106
107
109
120
120
105
#1
119
not supplied
not supplied
#1
115
104
121
116
#1
103
120
102
117
#1
101
118
Supplied with S800
#1

Ref. No.	Part No.	Description	Remark
101	4-234-934-21	PANEL (AL), FRONT	
102	X-4954-752-2	WINDOW SUB ASSY (FL)	
103	X-4954-751-2	WINDOW SUB ASSY (LID)	
104	4-234-948-01	SPRING (LID OPEN)	
105	X-4953-865-2	PANEL ASSY, FRONT	
106	1-682-002-13	PW 1179 BOARD	
107	X-4953-864-1	POWER SUB ASSY, BUTTON	
109	1-681-998-13	DDCON 1179 BOARD	
110	A-4676-750-A	DS 1179 BOARD, COMPLETE	
111	4-234-932-11	BUTTON (DVD)	
112	X-4953-866-1	PLAY SUB ASSY, BUTTON	
113	1-682-000-13	SW 1179 BOARD	
114	1-823-081-11	CABLE, FLEXIBLE FLAT (17 CORE)	
115	A-4676-753-A	FP 1179 BOARD, COMPLETE	
116	1-681-999-13	FU 1179 BOARD	
117	1-682-003-13	HP 1179 BOARD	
118	4-234-924-01	FOOT	
119	3-229-336-01	SCREW, +BVWH TAPPING	
120	4-931-757-31	SCREW(DIA.2.6X8)(IT3B),TAPPING	
121	4-234-935-01	DVD LID	
⚠S901	1-786-210-11	SWITCH, POWER (POWER)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

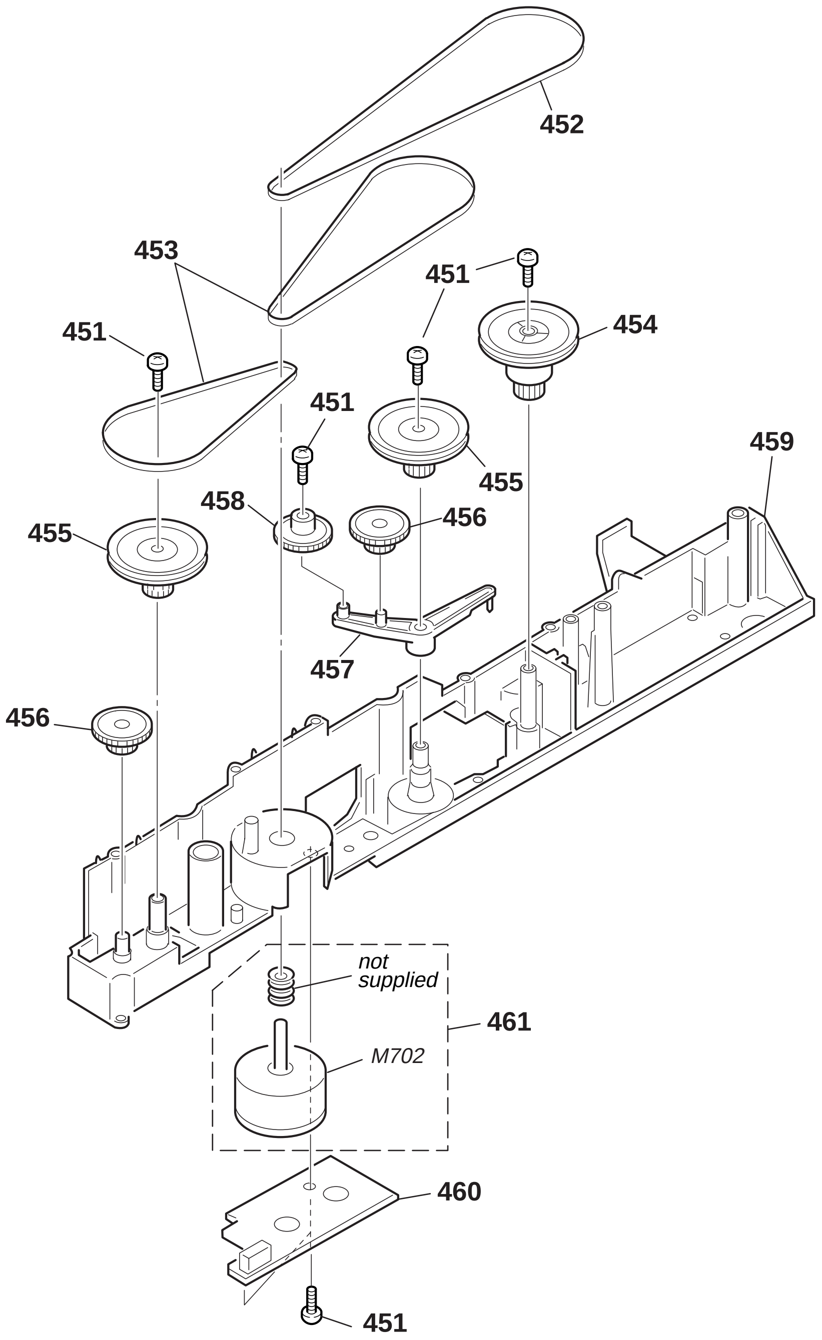
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-4. Overall Section (CDM53K-DVBU7)


402
not supplied
402
402
415
412
402
414
416
411
421
413
402
402
402
404
417
402
410
418
422
419
402
Chassis (mold)
assembly section
(CDM53K-DVBU7)
420
402
409
A
not supplied
402
408
A
423
Chassis section
(CDM53K-DVBU7)
424
407
403
402
406
402
405
401
402

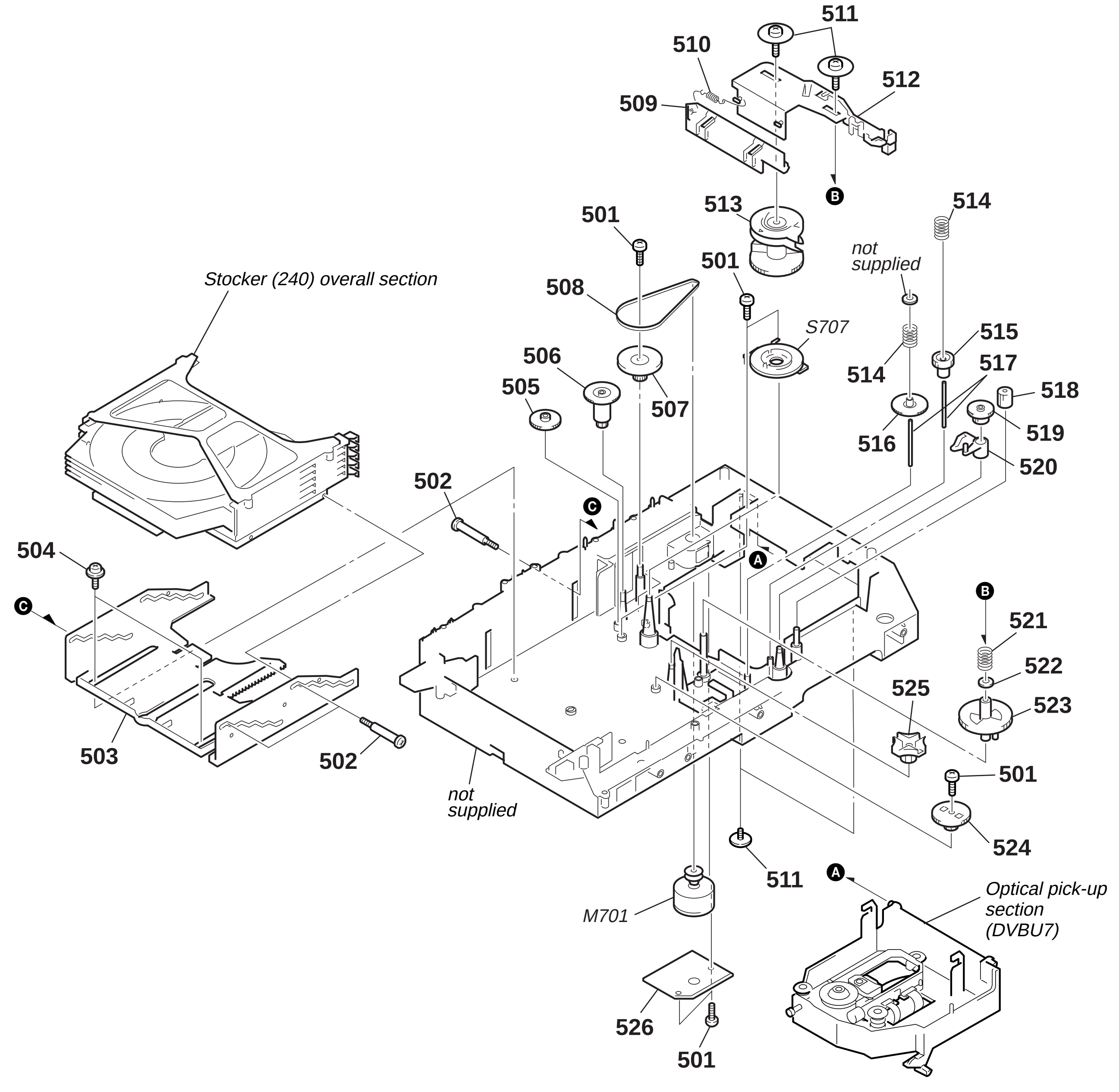
Ref. No.	Part No.	Description	Remark
401	3-341-549-01	SCREW(2.6X12)(DIA.7.5),+PTP WH	
402	4-951-620-41	SCREW (2.6), +BVTP	
403	1-675-724-21	INIT/COUNT SW BOARD	
404	4-211-215-01	GEAR (EJECT)	
405	1-675-726-21	SENSOR BOARD	
406	4-212-676-03	SPRING (LID), TORSIONOR	
407	4-212-674-11	LID (DISC)	
408	4-933-134-01	SCREW (+PTPWH M2.6X6)	
409	A-4672-907-A	FITTING BASE (GUIDE) ASSY	
410	1-675-725-21	OUT SW BOARD	
411	1-675-727-21	SENSOR 2 BOARD	
412	4-964-461-02	HOLDER (SENSOR)	
413	A-4672-872-A	BASE (MAGNET) ASSY, FITTING	
414	3-053-844-01	YOKE	
415	4-234-723-01	PULLEY (AT) (240)	
416	4-222-783-01	LEVER (LIFTER)	
417	4-221-530-01	LEVER (DETECTION C)	
418	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
419	4-221-528-01	LEVER (DETECTION A)	
420	4-222-782-06	BASE (MAGNET), FITTING	
* 421	4-214-129-01	COVER	
422	1-675-723-21	IN SW BOARD	
423	X-4954-450-1	PULLEY (240) ASSY	
424	1-675-722-21	CONNECTOR BOARD	

6-5. Chassis (Mold) Assembly Section (CDM53K-DVBU7)


452
453
451
451
454
451
459
455
458
456
455
457
456
not supplied
461
M702
460
451

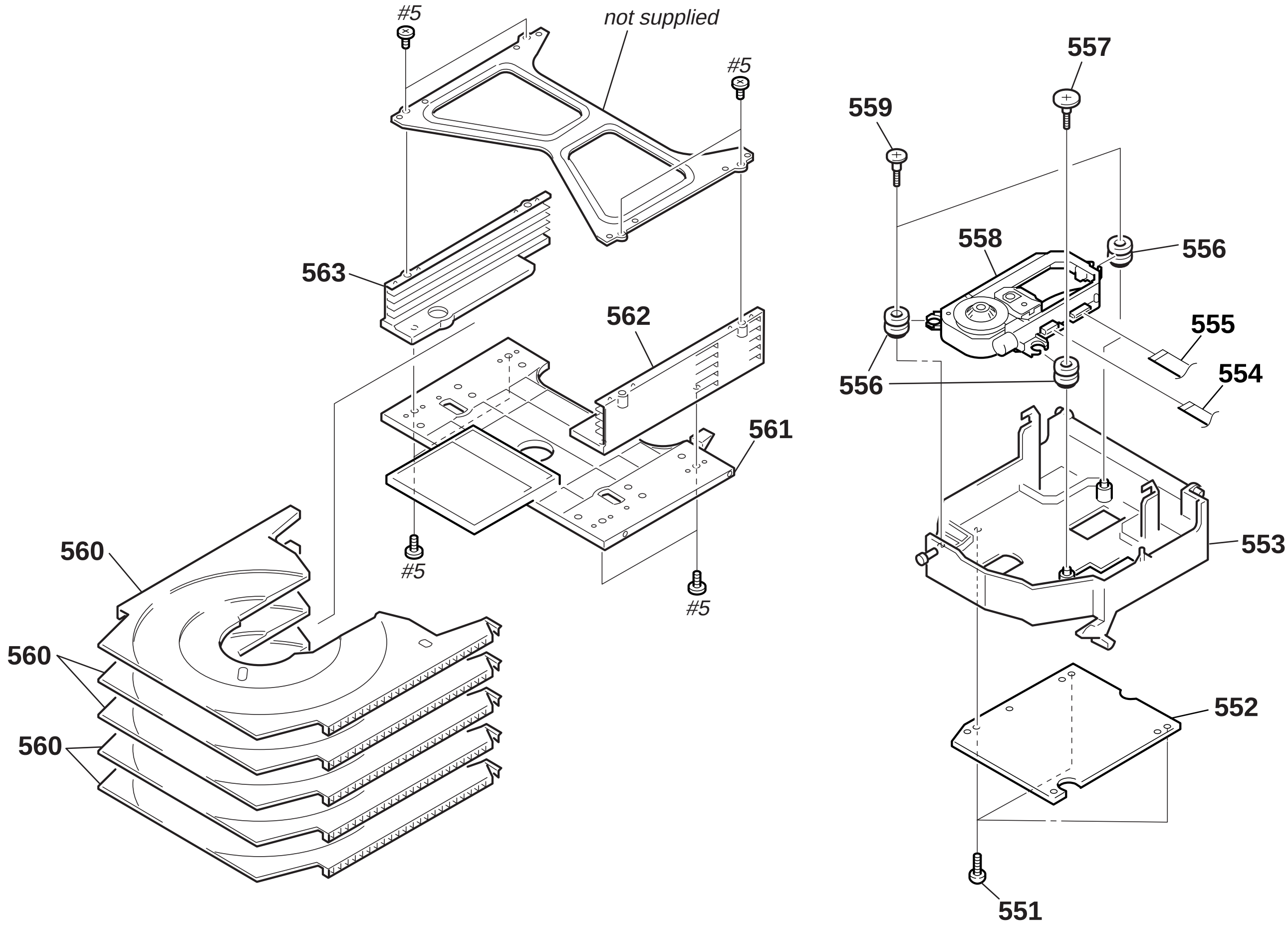
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
451	4-951-620-41	SCREW (2.6), +BVTP		457	4-211-228-01	LEVER (GOOSENECK)	
452	4-211-235-01	BELT (COMMUNICATION)		458	4-214-130-01	GEAR (TRAY)	
453	4-211-236-01	BELT (LOADING)		459	4-211-209-12	CHASSIS (MOLD B)	
454	4-211-231-01	PULLEY (MODE)		460	1-675-728-21	LOAD MOTOR BOARD	
455	4-211-214-01	PULLEY (LD)		461	X-4950-342-1	MOTOR (LOADING) ASSY	
456	4-211-227-01	GEAR (LD DECELERATION)		M702	1-763-790-11	MOTOR, DC (LOADING)	

6-6. Chassis Section (CDM53K-DVBU7)


511
510
512
509
B
513
514
501
not supplied
Stocker (240) overall section
508
501
S707
515
506
517
505
514
518
507
519
516
520
502
C
504
A
C
B
521
522
525
523
503
502
not supplied
501
524
511
A
Optical pick-up section (DVBU7)
M701
526
501

Ref. No.	Part No.	Description	Remark
501	4-951-620-41	SCREW (2.6), +BVTP	
502	4-230-548-11	SCREW (J), STEP	
503	4-211-223-01	SLIDER (U/D)	
504	4-933-134-01	SCREW (+PTPWH M2.6X6)	
506	4-211-232-01	GEAR (MODE DECELERATION)	
507	4-211-214-01	PULLEY (LD)	
508	4-211-237-01	BELT (MODE)	
509	4-212-677-01	SLIDER (SHUTTER)	
510	4-212-678-01	SPRING (SHUTTER), TENSION	
511	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
512	4-211-233-01	SLIDER (SELECTION)	
513	4-211-230-01	GEAR (CHUCKING)	
514	4-211-245-01	SPRING, COMPRESSION	
515	4-211-221-01	GEAR (LD MOVABLE)	
516	4-211-217-02	GEAR (SELECTION)	
517	4-211-242-01	SHAFT (SELECTION GEAR)	
518	4-211-240-01	GEAR (LD DECELERATION B)	
519	4-211-216-01	GEAR (RELAY)	
520	4-211-241-01	LEVER (SELECTION)	
521	4-216-879-01	SPRING (GEAR A), COMPRESSION	
522	3-701-446-21	WASHER, 8	
523	4-211-218-01	GEAR (GEAR A)	
524	4-211-220-01	GEAR (U/D SLIDER)	
525	4-211-219-01	GEAR (GEAR B)	
526	1-675-729-21	CLAMP MOTOR BOARD	
M701	X-4950-341-1	MOTOR (CLAMP) ASSY (CLAMP)	
S707	1-418-045-01	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	

6-7. Stocker (240) Overall Section, Optical Pick-up Section (DVBU7)



Ref. No.	Part No.	Description	Remark
552	A-4726-883-A	RF-240 MOUNTED BOARD, COMPLETE	
553	X-4954-130-2	HOLDER (240) ASSY	
554	1-823-085-11	CABLE, FLEXIBLE FLAT (9 CORE)	
555	1-823-072-11	CABLE, FLEXIBLE FLAT 26P	
556	3-053-847-31	INSULATOR	
557	4-236-450-01	SCREW (L), STEP	
⚠558	8-820-144-06	OPTICAL PICK-UP KHM-240AAA	
559	4-236-579-01	SCREW (S), STEP	
560	4-234-047-01	TRAY (240)	
561	4-221-504-01	BASE (STOCKER), FITTING	
562	4-211-211-01	STOCKER (R)	
563	4-211-210-01	STOCKER (L)	
#5	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 7
ELECTRICAL PARTS LIST

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μ A..., uPA...: μ PA..., uPB...: μ PB..., uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
  uF : μ F
- COILS
  uH : μ H

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Abbreviation
  AUS : Australian model.
  CND : Canadian model.
  E12 : 220V-240V AC in E model.
  E32 : 110V-240V AC (without VS) in E model.
  EA : Saudi Arabia model.
  MX : Mexican model.
  SP : Singapore model.

Ref. No.	Part No.	Description			Remark
	A-4729-819-A	AMP BOARD, COMPLETE (EXCEPT US,CND,MX)			
	A-4676-743-A	AMP BOARD, COMPLETE (US,CND,MX)			
		********************			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
		< CAPACITOR >			
C300	1-115-819-11	ELECT	2200uF	20.00%	35V
C301	1-126-965-91	ELECT	22uF	20.00%	50V
C302	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C303	1-136-157-00	FILM	0.022uF	5%	50V
C304	1-136-157-00	FILM	0.022uF	5%	50V
C305	1-136-165-00	FILM	0.1uF	5%	50V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C307	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C308	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C309	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C310	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C311	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C312	1-104-665-11	ELECT	100uF	20.00%	10V
C313	1-136-165-00	FILM	0.1uF	5%	50V
C316	1-163-021-91	CERAMIC CHIP	0.01uF	10.00%	50V
C317	1-126-948-11	ELECT	100uF	20.00%	35V
C318	1-104-665-11	ELECT	100uF	20.00%	10V
C319	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C320	1-104-665-11	ELECT	100uF	20.00%	10V
C323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C324	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C325	1-104-665-11	ELECT	100uF	20.00%	10V
C326	1-126-947-11	ELECT	47uF	20.00%	10V
C327	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C328	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C329	1-126-934-11	ELECT	220uF	20.00%	10V
C330	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C331	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C332	1-136-157-00	FILM	0.022uF	5%	50V
C333	1-136-157-00	FILM	0.022uF	5%	50V
C334	1-136-165-00	FILM	0.1uF	5%	50V
C335	1-136-165-00	FILM	0.1uF	5%	50V
C336	1-104-665-11	ELECT	100uF	20.00%	10V
C337	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C341	1-163-021-91	CERAMIC CHIP	0.01uF	10.00%	50V
C342	1-126-948-11	ELECT	100uF	20.00%	35V
C343	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C344	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C345	1-104-665-11	ELECT	100uF	20.00%	10V
C348	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C349	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C350	1-104-665-11	ELECT	100uF	20.00%	10V
C351	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C352	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C353	1-136-157-00	FILM	0.022uF	5%	50V
C354	1-136-157-00	FILM	0.022uF	5%	50V
C355	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C356	1-136-165-00	FILM	0.1uF	5%	50V
C357	1-136-165-00	FILM	0.1uF	5%	50V
C358	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C359	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C362	1-104-665-11	ELECT	100uF	20.00%	10V
C363	1-163-021-91	CERAMIC CHIP	0.01uF	10.00%	50V
C364	1-126-948-11	ELECT	100uF	20.00%	35V
C365	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C368	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C372	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C373	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C374	1-136-157-00	FILM	0.022uF	5%	50V
C375	1-136-157-00	FILM	0.022uF	5%	50V
C376	1-136-165-00	FILM	0.1uF	5%	50V
C377	1-136-165-00	FILM	0.1uF	5%	50V
C378	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C381	1-104-665-11	ELECT	100uF	20.00%	10V
C382	1-163-021-91	CERAMIC CHIP	0.01uF	10.00%	50V
C383	1-126-948-11	ELECT	100uF	20.00%	35V
C384	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C387	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C388	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C389	1-104-665-11	ELECT	100uF	20.00%	10V
C390	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C391	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C392	1-104-665-11	ELECT	100uF	20.00%	10V
C393	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C394	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C395	1-136-157-00	FILM	0.022uF	5%	50V
C396	1-136-157-00	FILM	0.022uF	5%	50V
C397	1-136-165-00	FILM	0.1uF	5%	50V
C398	1-136-165-00	FILM	0.1uF	5%	50V
C399	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V

AMP

Ref. No.	Part No.	Description	Remarks
C402	1-163-021-91	CERAMIC CHIP 0.01uF 10.00% 50V	
C403	1-126-948-11	ELECT 100uF 20.00% 35V	
C404	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C405	1-104-665-11	ELECT 100uF 20.00% 10V	
C408	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C409	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C410	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C411	1-136-157-00	FILM 0.022uF 5% 50V	
C412	1-136-157-00	FILM 0.022uF 5% 50V	
C413	1-136-165-00	FILM 0.1uF 5% 50V	
C414	1-136-165-00	FILM 0.1uF 5% 50V	
C415	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C416	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C419	1-163-021-91	CERAMIC CHIP 0.01uF 10.00% 50V	
C420	1-126-948-11	ELECT 100uF 20.00% 35V	
C421	1-107-826-11	CERAMIC CHIP 0.1uF 10.00% 16V	
C422	1-104-665-11	ELECT 100uF 20.00% 10V	
C425	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C432	1-162-915-11	CERAMIC CHIP 10PF 0.5PF 50V	
C433	1-164-230-11	CERAMIC CHIP 220PF 5.00% 50V	
C434	1-164-230-11	CERAMIC CHIP 220PF 5.00% 50V	
C441	1-163-021-91	CERAMIC CHIP 0.01uF 10.00% 50V	
C442	1-163-021-91	CERAMIC CHIP 0.01uF 10.00% 50V	
C443	1-163-234-11	CERAMIC CHIP 20PF 5.00% 50V	(US,CND,MX)
C443	1-163-243-11	CERAMIC CHIP 47PF 5.00% 50V	(EXCEPT US,CND,MX)
C451	1-136-177-00	FILM 1uF 5.00% 50V	
C452	1-136-177-00	FILM 1uF 5.00% 50V	
C453	1-136-177-00	FILM 1uF 5.00% 50V	
C454	1-136-177-00	FILM 1uF 5.00% 50V	
C455	1-136-177-00	FILM 1uF 5.00% 50V	
C456	1-136-177-00	FILM 1uF 5.00% 50V	
C457	1-136-177-00	FILM 1uF 5.00% 50V	
C458	1-136-177-00	FILM 1uF 5.00% 50V	
C459	1-136-177-00	FILM 1uF 5.00% 50V	
C460	1-136-177-00	FILM 1uF 5.00% 50V	
C461	1-136-177-00	FILM 1uF 5.00% 50V	
C462	1-136-177-00	FILM 1uF 5.00% 50V	
C474	1-126-934-11	ELECT 220uF 20.00% 16V	
C484	1-126-934-11	ELECT 220uF 20.00% 16V	
		< CONNECTOR >	
CN301	1-779-280-11	CONNECTOR,FFC (LIF (NON-ZIF)) 12P	
CN305	1-793-600-11	CONNECTOR, FFC/FPC (ZIF) 17P	
* CN309	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P	
		< DIODE >	
D310	8-719-073-82	DIODE SFPB-76V	
D311	8-719-073-82	DIODE SFPB-76V	
D312	8-719-073-82	DIODE SFPB-76V	
D313	8-719-073-82	DIODE SFPB-76V	
D314	8-719-073-82	DIODE SFPB-76V	
D315	8-719-073-82	DIODE SFPB-76V	
D320	8-719-073-82	DIODE SFPB-76V	
D321	8-719-073-82	DIODE SFPB-76V	
D322	8-719-073-82	DIODE SFPB-76V	
D323	8-719-073-82	DIODE SFPB-76V	

Ref. No.	Part No.	Description	Remarks
D324	8-719-073-82	DIODE SFPB-76V	
D325	8-719-073-82	DIODE SFPB-76V	
D330	6-500-131-01	DIODE LI116	
D331	6-500-131-01	DIODE LI116	
D332	6-500-131-01	DIODE LI116	
D333	6-500-131-01	DIODE LI116	
D334	6-500-131-01	DIODE LI116	
D335	6-500-131-01	DIODE LI116	
D340	6-500-131-01	DIODE LI116	
D341	6-500-131-01	DIODE LI116	
D342	6-500-131-01	DIODE LI116	
D343	6-500-131-01	DIODE LI116	
D344	6-500-131-01	DIODE LI116	
D345	6-500-131-01	DIODE LI116	
D351	8-719-404-50	DIODE MA111-TX	
D370	6-500-060-01	DIODE P6SMB36AT3	
D371	6-500-060-01	DIODE P6SMB36AT3	
D372	6-500-060-01	DIODE P6SMB36AT3	
D373	6-500-060-01	DIODE P6SMB36AT3	
D374	6-500-060-01	DIODE P6SMB36AT3	
D375	6-500-060-01	DIODE P6SMB36AT3	
D380	6-500-060-01	DIODE P6SMB36AT3	
D381	6-500-060-01	DIODE P6SMB36AT3	
D382	6-500-060-01	DIODE P6SMB36AT3	
D383	6-500-060-01	DIODE P6SMB36AT3	
D384	6-500-060-01	DIODE P6SMB36AT3	
D385	6-500-060-01	DIODE P6SMB36AT3	
		< TERMINAL >	
EB301	1-537-770-21	TERMINAL BOARD, GROUND	
		< FERRITE BEAD >	
FB300	1-469-760-21	INDUCTOR 0UH	
FB301	1-469-760-21	INDUCTOR 0UH	
FB303	1-400-160-51	INDUCTOR 0UH	
FB304	1-469-760-21	INDUCTOR 0UH	
FB307	1-469-760-21	INDUCTOR 0UH	
FB308	1-469-760-21	INDUCTOR 0UH	
FB309	1-400-160-51	INDUCTOR 0UH	
FB312	1-400-160-51	INDUCTOR 0UH	
FB313	1-400-160-51	INDUCTOR 0UH	
FB314	1-469-760-21	INDUCTOR 0UH	
FB315	1-469-760-21	INDUCTOR 0UH	
FB318	1-400-160-51	INDUCTOR 0UH	
FB320	1-400-160-51	INDUCTOR 0UH	
FB365	1-400-160-51	INDUCTOR 0uH	
		< IC >	
IC300	8-759-834-29	IC MC74VHC1G04DFT1	
IC301	6-701-741-01	IC CXD9646A	
IC302	8-759-533-85	IC BA05FP-E2	
IC303	8-759-583-47	IC uPC2933T-E2	
IC304	6-701-741-01	IC CXD9646A	
IC305	6-700-279-01	IC CXD9634AQ	
IC306	6-701-741-01	IC CXD9646A	
IC307	6-701-741-01	IC CXD9646A	
IC308	6-700-279-01	IC CXD9634AQ	
IC309	6-701-741-01	IC CXD9646A	

Ref. No.	Part No.	Description			Remarks
IC310	6-700-279-01	IC CXD9634AQ			
IC311	6-701-741-01	IC CXD9646A			
IC312	8-759-834-30	IC MC74VHC1G08DFT1			
		< TERMINAL >			
J401	1-694-656-11	TERMINAL BOARD (6CH SPEAKER)			
		< COIL >			
L302	1-412-939-11	INDUCTOR	1uH		
L401	1-424-777-11	INDUCTOR	10uH		
L402	1-424-777-11	INDUCTOR	10uH		
L403	1-424-777-11	INDUCTOR	10uH		
L404	1-424-777-11	INDUCTOR	10uH		
L405	1-424-777-11	INDUCTOR	10uH		
L406	1-424-777-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q301	8-729-119-78	TRANSISTOR	2SC2785TP-HFE		
		< RESISTOR >			
R300	1-216-833-11	METAL CHIP	10K	5%	1/16W
R301	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R302	1-216-857-11	METAL CHIP	1M	5%	1/16W
R303	1-216-833-11	METAL CHIP	10K	5%	1/16W
R304	1-216-809-11	METAL CHIP	100	5%	1/16W
R305	1-216-809-11	METAL CHIP	100	5%	1/16W
R307	1-216-809-11	METAL CHIP	100	5%	1/16W
R308	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R309	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R310	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R311	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R312	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R313	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R315	1-216-809-11	METAL CHIP	100	5%	1/16W
R316	1-216-809-11	METAL CHIP	100	5%	1/16W
R317	1-216-809-11	METAL CHIP	100	5%	1/16W
R318	1-216-809-11	METAL CHIP	100	5%	1/16W
R319	1-216-809-11	METAL CHIP	100	5%	1/16W
R320	1-216-809-11	METAL CHIP	100	5%	1/16W
R321	1-216-809-11	METAL CHIP	100	5%	1/16W
R322	1-216-803-11	METAL CHIP	33	5%	1/16W
R325	1-216-801-11	METAL CHIP	22	5%	1/16W
R330	1-216-809-11	METAL CHIP	100	5%	1/16W
R333	1-216-809-11	METAL CHIP	100	5%	1/16W
R334	1-216-820-11	METAL CHIP	820	5%	1/16W
R335	1-216-809-11	METAL CHIP	100	5%	1/16W
R336	1-216-820-11	METAL CHIP	820	5%	1/16W
R337	1-216-833-11	METAL CHIP	10K	5%	1/16W
R338	1-216-295-00	SHORT	0		
R339	1-216-814-11	METAL CHIP	270	5%	1/16W
R340	1-216-814-11	METAL CHIP	270	5%	1/16W
R341	1-216-814-11	METAL CHIP	270	5%	1/16W
R342	1-216-814-11	METAL CHIP	270	5%	1/16W
R343	1-216-809-11	METAL CHIP	100	5%	1/16W
R344	1-216-814-11	METAL CHIP	270	5%	1/16W
R346	1-216-295-00	SHORT	0		
R347	1-216-295-00	SHORT	0		
R348	1-216-809-11	METAL CHIP	100	5%	1/16W
R349	1-216-809-11	METAL CHIP	100	5%	1/16W
R350	1-216-809-11	METAL CHIP	100	5%	1/16W
R370	1-218-484-11	RES-CHIP	750	5%	1/10W
R410	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R411	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R415	1-216-833-11	METAL CHIP	10K	5%	1/16W
R420	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R421	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R476	1-216-295-00	SHORT	0		
R486	1-216-295-00	SHORT	0		
		< RELAY >			
RY301	1-515-920-11	RELAY (24V)			
RY302	1-515-920-11	RELAY (24V)			
RY303	1-515-920-11	RELAY (24V)			
		< VIBRATOR >			
X300	1-795-286-21	VIBRATOR, CRYSTAL (49.152MHz)			

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	1-675-729-21	CLAMP MOTOR BOARD ******************			
		< CAPACITOR >			
C701	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C702	1-126-964-11	ELECT	10uF	20.00%	50V
C706	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C711	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
		< CONNECTOR >			
* CN712	1-568-954-11	PIN, CONNECTOR 5P			
		< DIODE >			
D701	8-719-109-69	DIODE MTZJ-T-77-3.6B			
		< IC >			
IC701	8-759-633-65	IC M54641L			
		< RESISTOR >			
R701	1-249-411-11	CARBON	330	5%	1/4W
R702	1-249-401-11	CARBON	47	5%	1/4W F

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		COMPONENT BOARD *****************			
		< CAPACITOR >			
C742	1-126-933-11	ELECT	100uF	20.00%	16V
C743	1-124-234-00	ELECT	22uF	20%	16V
C744	1-126-933-11	ELECT	100uF	20.00%	16V
C745	1-128-551-11	ELECT	22uF	20.00%	25V
C746	1-126-933-11	ELECT	100uF	20.00%	16V
C747	1-128-551-11	ELECT	22uF	20.00%	25V
C748	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C749	1-162-921-11	CERAMIC CHIP	33PF	5%	50V

Ref. No.	Part No.	Description			Remarks
		< IC >			
IC703	8-759-522-11	IC BA7660FS-E2			
		< JACK >			
J666	1-815-814-21	JACK, PIN 3P (COMPONENT VIDEO OUT)			
		< RESISTOR >			
R729	1-218-285-11	RES-CHIP	75	5%	1/10W
R730	1-218-285-11	RES-CHIP	75	5%	1/10W
R731	1-218-285-11	RES-CHIP	75	5%	1/10W

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Ref. No.	Part No.	Description			Remarks
	1-675-722-21	CONNECTOR BOARD *****************			
		< CONNECTOR >			
CN701	1-770-169-11	CONNECTOR, FFC/FPC 17P			
		< TRANSISTOR >			
Q701	8-729-029-66	TRANSISTOR	RT1N141S-TP		
		< RESISTOR >			
R707	1-249-424-11	CARBON	3.9K	5%	1/4W F
R708	1-249-417-11	CARBON	1K	5%	1/4W F
R709	1-249-429-11	CARBON	10K	5%	1/4W

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Ref. No.	Part No.	Description			Remarks
	1-681-998-13	DDCON 1179 BOARD *****************			
		< CAPACITOR >			
C820	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C821	1-126-964-11	ELECT	10uF	20.00%	50V
C822	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C823	1-126-964-11	ELECT	10uF	20.00%	50V
C826	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C830	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
* CN806	1-568-943-11	PIN, CONNECTOR 5P			
		< DIODE >			
D806	8-719-404-50	DIODE MA111-TX			
D807	8-719-404-50	DIODE MA111-TX			
D808	8-719-404-50	DIODE MA111-TX			
D809	8-719-404-50	DIODE MA111-TX			
D810	8-719-069-56	DIODE UDZSTE-176.2B			
		< COIL >			
L801	1-412-959-11	INDUCTOR	47uH		
		< TRANSISTOR >			
Q803	8-729-808-42	TRANSISTOR	2SD1624-T-TD		
Q804	8-729-808-42	TRANSISTOR	2SD1624-T-TD		

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R850	1-216-828-11	METAL CHIP	3.9K	5%	1/16W
R855	1-216-809-11	METAL CHIP	100	5%	1/16W
R874	1-216-839-11	METAL CHIP	33K	5%	1/16W
		< TRANSFORMER >			
T801	1-437-416-11	TRANSFORMER, DC-DC CONVERTER			

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Ref. No.	Part No.	Description			Remarks
	A-4676-750-A	DS 1179 BOARD, COMPLETE ************************			
	4-237-280-01	CAP, LED			
		< CONNECTOR >			
* CN811	1-568-950-11	PIN, CONNECTOR 12P			
		< DIODE >			
D801	8-719-057-29	DIODE SML78423C-TP15 (DISC 1)			
D802	8-719-057-29	DIODE SML78423C-TP15 (DISC 2)			
D803	8-719-057-29	DIODE SML78423C-TP15 (DISC 3)			
D804	8-719-057-29	DIODE SML78423C-TP15 (DISC 4)			
D805	8-719-057-29	DIODE SML78423C-TP15 (DISC 5)			
		< RESISTOR >			
R816	1-216-813-11	METAL CHIP	220	5%	1/16W
R817	1-216-813-11	METAL CHIP	220	5%	1/16W
R818	1-216-813-11	METAL CHIP	220	5%	1/16W
R819	1-216-813-11	METAL CHIP	220	5%	1/16W
R820	1-216-813-11	METAL CHIP	220	5%	1/16W
R821	1-216-813-11	METAL CHIP	220	5%	1/16W
R822	1-216-813-11	METAL CHIP	220	5%	1/16W
R823	1-216-813-11	METAL CHIP	220	5%	1/16W
R824	1-216-813-11	METAL CHIP	220	5%	1/16W
R825	1-216-813-11	METAL CHIP	220	5%	1/16W
R826	1-216-839-11	METAL CHIP	33K	5%	1/16W
R827	1-216-833-11	METAL CHIP	10K	5%	1/16W
R828	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R829	1-216-821-11	METAL CHIP	1K	5%	1/16W
R830	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R831	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R832	1-216-819-11	METAL CHIP	680	5%	1/16W
R833	1-216-817-11	METAL CHIP	470	5%	1/16W
R834	1-216-815-11	METAL CHIP	330	5%	1/16W
R835	1-216-813-11	METAL CHIP	220	5%	1/16W
		< SWITCH >			
S811	1-571-760-11	SWITCH, KEY BOARD (DISC 1)			
S812	1-571-760-11	SWITCH, KEY BOARD (eject)			
S813	1-571-760-11	SWITCH, KEY BOARD (DISC 2)			
S814	1-571-760-11	SWITCH, KEY BOARD (eject)			
S815	1-571-760-11	SWITCH, KEY BOARD (DISC 3)			
S816	1-571-760-11	SWITCH, KEY BOARD (eject)			
S817	1-571-760-11	SWITCH, KEY BOARD (DISC 4)			
S818	1-571-760-11	SWITCH, KEY BOARD (eject)			
S819	1-571-760-11	SWITCH, KEY BOARD (DISC 5)			
S820	1-571-760-11	SWITCH, KEY BOARD (eject)			

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Ref. No.	Part No.	Description			Remarks
	A-4676-740-A	DVD BOARD, COMPLETE (US,CND)			
	A-4729-816-A	DVD BOARD, COMPLETE (E12)			
	A-4729-827-A	DVD BOARD, COMPLETE (AUS)			
	A-4729-832-A	DVD BOARD, COMPLETE (EA)			
	A-4729-835-A	DVD BOARD, COMPLETE (SP)			
	A-4729-842-A	DVD BOARD, COMPLETE (E32,MX)			
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		< CAPACITOR >			
C001	1-165-798-21	ELECT CHIP	100uF	20%	6.3V (US,CND)
C003	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C004	1-126-204-11	ELECT CHIP	47uF	20%	16V
C005	1-126-246-11	ELECT CHIP	220uF	20%	4V
C006	1-126-204-11	ELECT CHIP	47uF	20%	16V
C007	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	16V
C008	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C009	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C010	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C011	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C012	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C013	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C014	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C015	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C016	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C017	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C018	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C019	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C103	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C104	1-126-209-11	ELECT CHIP	100uF	20.00%	4V
C105	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C106	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C107	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C108	1-164-854-11	CERAMIC CHIP	15PF	5.00%	50V
C109	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C110	1-126-209-11	ELECT CHIP	100uF	20.00%	4V
C111	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C112	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C113	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C114	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C116	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C119	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C201	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C202	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C203	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C204	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C205	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C206	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C207	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C304	1-126-246-11	ELECT CHIP	220uF	20%	4V
C305	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C306	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C307	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C309	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C310	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C311	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C312	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C313	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V
C315	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C317	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C318	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C319	1-137-987-81	CERAMIC CHIP	0.068uF	10%	10V
C320	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C321	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C322	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C323	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C324	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C325	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C326	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C327	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C328	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C331	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C332	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C333	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C334	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C335	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C336	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C337	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C338	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C339	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C340	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C341	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C342	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C343	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C344	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C345	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C346	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C347	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C348	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C349	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C350	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C351	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C401	1-127-988-81	CERAMIC CHIP	15000PF	10%	16V
C402	1-164-882-11	CERAMIC CHIP	220PF	5.00%	16V
C403	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C404	1-164-938-11	CERAMIC CHIP	0.0015uF	10.00%	50V
C405	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C406	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C407	1-164-882-11	CERAMIC CHIP	220PF	5.00%	16V
C408	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
C411	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C412	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V
C413	1-127-772-81	CERAMIC CHIP	33000PF	10%	10V
C414	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C415	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C416	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C417	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C418	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C419	1-117-681-11	ELECT CHIP	100uF	20.00%	16V
C420	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C421	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C429	1-164-937-11	CERAMIC CHIP	0.001uF	10.00%	50V
C430	1-164-937-11	CERAMIC CHIP	0.001uF	10.00%	50V
C501	1-126-193-11	ELECT	1uF	20%	50V
C502	1-117-370-11	CERAMIC CHIP	10uF		10V
C504	1-164-947-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remarks
C506	1-117-370-11	CERAMIC CHIP	10uF		10V
C508	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C509	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C510	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C511	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C512	1-126-246-11	ELECT CHIP	220uF	20%	4V
C513	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C514	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C516	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C518	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C519	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C520	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C521	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C522	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C523	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C524	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C525	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C526	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C529	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C530	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C531	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C532	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C533	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C534	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C535	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C536	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C537	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C538	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C539	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C540	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C541	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C542	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C545	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C546	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C547	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C552	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C600	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C601	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C602	1-117-681-11	ELECT CHIP	100uF	20.00%	16V
C603	1-164-858-11	CERAMIC CHIP	22PF	5.00%	50V
C604	1-164-868-11	CERAMIC CHIP	56PF	5.00%	50V
C606	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C607	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C608	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C609	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C610	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C611	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C612	1-117-370-11	CERAMIC CHIP	10uF		10V
C613	1-117-370-11	CERAMIC CHIP	10uF		10V
C614	1-124-779-00	ELECT CHIP	10uF	20%	16V
C615	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C616	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C617	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C618	1-124-779-00	ELECT CHIP	10uF	20%	16V
C619	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C620	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C621	1-164-935-11	CERAMIC CHIP	470PF	10.00%	50V
C622	1-124-779-00	ELECT CHIP	10uF	20%	16V
C623	1-164-850-11	CERAMIC CHIP	10PF	0.50PF	50V
C624	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C625	1-124-779-00	ELECT CHIP	10uF	20%	16V
C626	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C627	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C628	1-124-779-00	ELECT CHIP	10uF	20%	16V
C629	1-164-935-11	CERAMIC CHIP	470PF	10.00%	50V
C630	1-117-370-11	CERAMIC CHIP	10uF		10V
C631	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C632	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C633	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C634	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C635	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C636	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C637	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C638	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C639	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C640	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C641	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C642	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C643	1-126-246-11	ELECT CHIP	220uF	20%	4V
C644	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C645	1-124-779-00	ELECT CHIP	10uF	20%	16V
C646	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C647	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C648	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C650	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C651	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C652	1-126-246-11	ELECT CHIP	220uF	20%	4V
C653	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C654	1-117-681-11	ELECT CHIP	100uF	20.00%	16V
C656	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C657	1-117-370-11	CERAMIC CHIP	10uF		10V
C658	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C659	1-124-779-00	ELECT CHIP	10uF	20%	16V
C660	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C661	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C662	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C663	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C664	1-124-779-00	ELECT CHIP	10uF	20%	16V
C665	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C666	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C667	1-117-370-11	CERAMIC CHIP	10uF		10V
C668	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C669	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C670	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C671	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C672	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C673	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C674	1-117-370-11	CERAMIC CHIP	10uF		10V
C675	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C676	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C677	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C678	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C679	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C680	1-164-941-11	CERAMIC CHIP	0.0047uF	10.00%	16V
C801	1-164-947-11	CERAMIC CHIP	0.01uF		50V

Ref. No.	Part No.	Description			Remarks
C802	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C804	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C808	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C812	1-126-209-11	ELECT CHIP	100uF	20.00%	4V
C814	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C815	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C816	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C817	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C819	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C820	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C821	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C822	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C823	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C824	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C825	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C826	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C827	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C828	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C829	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C830	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C831	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C832	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C833	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C834	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C835	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C836	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C837	1-117-370-11	CERAMIC CHIP	10uF		10V
C900	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C901	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C902	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C905	1-164-930-11	CERAMIC CHIP	330PF	5.00%	16V
C906	1-164-930-11	CERAMIC CHIP	330PF	5.00%	16V
C907	1-164-937-11	CERAMIC CHIP	0.001uF	10.00%	50V
C908	1-164-937-11	CERAMIC CHIP	0.001uF	10.00%	50V
C909	1-164-222-91	CERAMIC CHIP	0.22uF		25V
C910	1-104-905-11	CAPACITOR	0.22F		5.5V
C911	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C912	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C913	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C914	1-164-947-11	CERAMIC CHIP	0.01uF		50V
C915	1-164-937-11	CERAMIC CHIP	0.001uF	10.00%	50V
C917	1-107-820-11	CERAMIC CHIP	0.1uF		16V
C918	1-164-874-11	CERAMIC CHIP	100PF	5.00%	50V
		< CONNECTOR >			
CN001	1-784-371-31	CONNECTOR, FFC/FPC 12P			
CN002	1-778-957-11	CONNECTOR, FFC/FPC 29P			
CN003	1-793-989-21	CONNECTOR, FFC/FPC 13P			
CN004	1-784-376-31	CONNECTOR, FFC/FPC 17P			
CN005	1-784-376-31	CONNECTOR, FFC/FPC 17P			
CN008	1-794-032-21	PIN, CONNECTOR (PC BOARD) 11P			
CN009	1-784-368-31	CONNECTOR, FFC/FPC 9P			
CN010	1-784-382-31	CONNECTOR, FFC/FPC 25P			
* CN103	1-573-768-21	PIN, CONNECTOR (1.5MM) (SMD)5P			
CN201	1-784-376-31	CONNECTOR, FFC/FPC 17P			
* CN202	1-573-768-21	PIN, CONNECTOR (1.5MM) (SMD)5P			
* CN404	1-573-768-21	PIN, CONNECTOR (1.5MM) (SMD)5P			

Ref. No.	Part No.	Description		Remarks
		< DIODE >		
D900	8-719-053-18	DIODE	1SR154-400TE-25	
D901	8-719-053-18	DIODE	1SR154-400TE-25	
D902	8-719-988-61	DIODE	1SS355TE-17	
D903	8-719-988-61	DIODE	1SS355TE-17	
D904	8-719-988-61	DIODE	1SS355TE-17	
		< FERRITE BEAD >		
FB001	1-469-324-21	FERRITE	0UH	
FB002	1-469-324-21	FERRITE	0uH	
FB003	1-469-324-21	FERRITE	0UH	
FB004	1-469-324-21	FERRITE	0uH	
FB005	1-469-324-21	FERRITE	0UH	
FB006	1-469-324-21	FERRITE	0UH	
FB007	1-469-324-21	FERRITE	0UH	
FB008	1-469-324-21	FERRITE	0UH	
FB009	1-469-324-21	FERRITE	0UH	
FB010	1-469-324-21	FERRITE	0UH	
FB011	1-469-324-21	FERRITE	0UH	
FB012	1-469-324-21	FERRITE	0UH	
FB013	1-469-324-21	FERRITE	0UH	
FB014	1-469-324-21	FERRITE	0UH	
FB112	1-469-681-21	INDUCTOR	0UH	
FB603	1-469-324-21	FERRITE	0UH	
FB605	1-469-324-21	FERRITE	0UH	
FB901	1-469-324-21	FERRITE	0UH	
		< FILTER >		
FL003	1-234-177-21	FERRITE	0UH	
FL004	1-234-177-21	FERRITE	0UH	
FL005	1-233-893-21	FILTER, CHIP EMI		
FL006	1-234-177-21	FERRITE	0UH	
FL101	1-233-893-21	FILTER, CHIP EMI		
FL102	1-233-893-21	FILTER, CHIP EMI		
FL103	1-233-893-21	FILTER, CHIP EMI		
FL201	1-233-893-21	FILTER, CHIP EMI		
FL202	1-233-893-21	FILTER, CHIP EMI		
FL203	1-234-177-21	FERRITE	0UH	
FL501	1-233-893-21	FILTER, CHIP EMI		
FL502	1-233-893-21	FILTER, CHIP EMI		
FL505	1-234-177-21	FERRITE	0UH	
FL603	1-234-177-21	FERRITE	0UH	
FL604	1-234-177-21	FERRITE	0UH	
FL605	1-234-177-21	FERRITE	0UH	
FL606	1-234-177-21	FERRITE	0UH	
FL801	1-233-893-21	FILTER, CHIP EMI		
FL802	1-233-893-21	FILTER, CHIP EMI		
FL803	1-233-893-21	FILTER, CHIP EMI		
		< IC >		
IC001	8-759-460-72	IC	BA033FP-E2	
IC002	8-759-052-52	IC	NJM78M05DL1A-TE1	
IC003	8-759-052-52	IC	NJM78M05DL1A-TE1	
IC004	8-759-473-95	IC	uPC2905T-E1	
IC005	8-759-460-72	IC	BA033FP-E2	
IC006	6-700-398-01	IC	uPC2918T-E1	
IC101	8-759-640-41	IC	BR24C08F-E2	
IC102	6-701-877-01	IC	SM8707EV-G-E2	

Ref. No.	Part No.	Description			Remarks
IC103	8-759-829-75	IC MB91307APFV-G-BND-E1			
IC106	6-700-785-01	IC SN74AHCT32PWR			
IC108	6-801-962-01	IC MR27V3202F-6ATPZ020			
IC201	6-700-740-01	IC LC22004A-RJ6-TBM-E			
IC302	8-759-828-01	IC CXD9635R			
IC303	8-759-567-35	IC MT4LC1M16C3TG-6TR			
IC304	8-759-680-48	IC TC7WH157FK(TE85R)			
IC401	8-759-826-42	IC FAN8034			
IC501	8-759-832-30	IC TK71518ASCL			
IC503	8-752-409-87	IC CXD1933Q			
IC504	6-700-353-01	IC MT48LC1M16A1TG-6STR			
IC505	6-700-353-01	IC MT48LC1M16A1TG-6STR			
IC600	8-759-052-52	IC NJM78M05DL1A-TE1			
IC601	6-701-011-01	IC uPC2910T-E1			
IC602	8-759-560-56	IC PCM1800E/2K			
IC603	8-759-337-40	IC NJM2904V(TE2)			
IC604	6-700-983-01	IC IS61LV6416-15T(ICSI)			
IC605	6-700-798-11	IC uPC2926T-1-E1			
IC606	8-759-825-15	IC LC89056W-E			
IC607	8-759-698-76	IC CXD9617R			
IC608	8-759-825-13	IC PCM1748E/2K			
IC610	8-759-337-40	IC NJM2904V(TE2)			
IC612	6-700-278-01	IC CXD9633Q			
IC801	8-752-407-50	IC CXD2752R			
IC802	8-759-585-52	IC SN74AHC1GU04DBVR			
IC803	6-700-134-01	IC IS42S16100-7T(T&R)			
IC804	8-759-637-50	IC TA48M025F(TE16L)			
IC900	8-759-238-47	IC TC74HCT7007AF(EL)			
IC901	6-801-641-01	IC uPD703033AYGF-M42-3BA			
IC902	8-759-828-32	IC PT8300			
IC903	8-759-427-92	IC PST9126NL			
IC904	8-759-326-78	IC PST9140NL			
		< JUMPER RESISTOR >			
JW900	1-218-941-81	RES-CHIP	100	5%	1/16W
JW901	1-218-941-81	RES-CHIP	100	5%	1/16W
JW902	1-218-941-81	RES-CHIP	100	5%	1/16W
JW903	1-218-941-11	SHORT	0		
		< COIL >			
L600	1-414-754-11	INDUCTOR	10uH		
L601	1-414-754-11	INDUCTOR	10uH		
L602	1-414-754-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q001	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
Q002	6-550-220-01	TRANSISTOR	2SB906(TE16L)		
Q900	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q901	8-729-230-63	TRANSISTOR	2SD1819A-QRS-TX		
Q902	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q903	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q906	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q907	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q908	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
Q909	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
Q910	8-729-901-00	TRANSISTOR	DTC124EKA-T146		

Ref. No.	Part No.	Description			Remarks
		< RESISTOR >			
R001	1-218-990-11	SHORT	0		
R002	1-218-990-11	SHORT	0		
R003	1-218-990-11	SHORT	0		
R004	1-218-990-11	SHORT	0		
R005	1-218-990-11	SHORT	0		
R006	1-218-990-11	SHORT	0		
R007	1-218-990-11	SHORT	0		
R008	1-218-990-11	SHORT	0		
R009	1-218-953-11	RES-CHIP	1K	5%	1/16W
R010	1-218-990-11	SHORT	0		
R011	1-218-949-11	RES-CHIP	470	5%	1/16W
R012	1-218-990-11	SHORT	0		
R013	1-218-990-11	SHORT	0		
R014	1-218-990-11	SHORT	0		
R015	1-218-990-11	SHORT	0		
R016	1-218-990-11	SHORT	0		
R017	1-218-990-11	SHORT	0		
R018	1-218-990-11	SHORT	0		
R019	1-218-990-11	SHORT	0		
R020	1-218-990-11	SHORT	0		
R021	1-218-990-11	SHORT	0		
R022	1-218-990-11	SHORT	0		
R023	1-218-990-11	SHORT	0		
R024	1-218-990-11	SHORT	0		
R025	1-218-990-11	SHORT	0		
R026	1-218-990-11	SHORT	0		
R027	1-218-990-11	SHORT	0		
R028	1-218-990-11	SHORT	0		
R029	1-218-990-11	SHORT	0		
R030	1-218-990-11	SHORT	0		
R031	1-218-990-11	SHORT	0		
R032	1-218-990-11	SHORT	0		
R033	1-218-990-11	SHORT	0		
R034	1-218-990-11	SHORT	0		
R035	1-218-990-11	SHORT	0		
R036	1-218-990-11	SHORT	0		
R037	1-218-990-11	SHORT	0		
R038	1-218-990-11	SHORT	0		
R039	1-218-990-11	SHORT	0		
R040	1-218-990-11	SHORT	0		
R041	1-218-990-11	SHORT	0		
R042	1-218-990-11	SHORT	0		
R043	1-218-953-11	RES-CHIP	1K	5%	1/16W
R044	1-218-990-11	SHORT	0		
R045	1-218-990-11	SHORT	0		
R046	1-218-990-11	SHORT	0		
R047	1-218-990-11	SHORT	0		
R048	1-218-990-11	SHORT	0		
R049	1-218-990-11	SHORT	0		
R050	1-218-990-11	SHORT	0		
R051	1-218-990-11	SHORT	0		
R052	1-218-990-11	SHORT	0		
R053	1-218-990-11	SHORT	0		
R055	1-218-990-11	SHORT	0		
R056	1-218-990-11	SHORT	0		
R057	1-218-990-11	SHORT	0		

Ref. No.	Part No.	Description			Remarks
R058	1-218-990-11	SHORT	0		
R063	1-218-990-11	SHORT	0		
R065	1-218-990-11	SHORT	0		
R068	1-218-990-11	SHORT	0		
R069	1-218-990-11	SHORT	0		
R070	1-218-990-11	SHORT	0		
R075	1-218-990-11	SHORT	0		
R076	1-218-969-11	RES-CHIP	22K	5%	1/16W
R077	1-218-947-11	RES-CHIP	330	5%	1/16W
R078	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R079	1-208-643-11	RES-CHIP	22	5%	1/16W
R101	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R105	1-218-965-11	RES-CHIP	10K	5%	1/16W
R106	1-218-965-11	RES-CHIP	10K	5%	1/16W
R107	1-218-941-81	RES-CHIP	100	5%	1/16W
R109	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R111	1-218-949-11	RES-CHIP	470	5%	1/16W
R112	1-218-953-11	RES-CHIP	1K	5%	1/16W
R113	1-218-965-11	RES-CHIP	10K	5%	1/16W
R114	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R116	1-218-965-11	RES-CHIP	10K	5%	1/16W
R117	1-218-953-11	RES-CHIP	1K	5%	1/16W
R118	1-218-953-11	RES-CHIP	1K	5%	1/16W
R119	1-218-965-11	RES-CHIP	10K	5%	1/16W
R121	1-218-965-11	RES-CHIP	10K	5%	1/16W
R122	1-218-965-11	RES-CHIP	10K	5%	1/16W
R123	1-218-965-11	RES-CHIP	10K	5%	1/16W
R124	1-208-635-11	METAL CHIP	10	0.50%	1/16W
R125	1-208-635-11	METAL CHIP	10	0.50%	1/16W
R126	1-208-635-11	METAL CHIP	10	0.50%	1/16W
R128	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R129	1-218-965-11	RES-CHIP	10K	5%	1/16W
R130	1-218-965-11	RES-CHIP	10K	5%	1/16W
R131	1-218-965-11	RES-CHIP	10K	5%	1/16W
R132	1-218-965-11	RES-CHIP	10K	5%	1/16W
R133	1-218-965-11	RES-CHIP	10K	5%	1/16W
R134	1-218-965-11	RES-CHIP	10K	5%	1/16W
R136	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R137	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R138	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R140	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R143	1-218-965-11	RES-CHIP	10K	5%	1/16W
R145	1-218-965-11	RES-CHIP	10K	5%	1/16W
R146	1-218-965-11	RES-CHIP	10K	5%	1/16W
R147	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R149	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R150	1-218-959-11	RES-CHIP	3.3K	5%	1/16W (AUS)
R150	1-218-953-11	RES-CHIP	1K	5%	1/16W (EA)
R150	1-218-963-11	RES-CHIP	6.8K	5%	1/16W (SP)
R150	1-218-971-11	RES-CHIP	33K	5%	1/16W (E32,MX)
R150	1-218-961-11	RES-CHIP	4.7K	5%	1/16W (E12)
R151	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R153	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R154	1-218-967-11	RES-CHIP	15K	5%	1/16W (AUS,E32,MX)
R154	1-218-975-11	RES-CHIP	68K	5%	1/16W (EA)
R154	1-218-971-11	RES-CHIP	33K	5%	1/16W (SP)
R154	1-218-965-11	RES-CHIP	10K	5%	1/16W (E12)
R155	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R156	1-218-965-11	RES-CHIP	10K	5%	1/16W
R157	1-218-990-11	SHORT	0		
R163	1-218-965-11	RES-CHIP	10K	5%	1/16W
R164	1-218-941-81	RES-CHIP	100	5%	1/16W
R165	1-218-941-81	RES-CHIP	100	5%	1/16W
R166	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R167	1-218-953-11	RES-CHIP	1K	5%	1/16W
R168	1-218-953-11	RES-CHIP	1K	5%	1/16W
R170	1-218-953-11	RES-CHIP	1K	5%	1/16W
R172	1-218-965-11	RES-CHIP	10K	5%	1/16W
R174	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R175	1-218-990-11	SHORT	0		
R176	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R177	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R178	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R179	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R182	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R183	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R184	1-218-965-11	RES-CHIP	10K	5%	1/16W
R185	1-218-965-11	RES-CHIP	10K	5%	1/16W
R186	1-218-965-11	RES-CHIP	10K	5%	1/16W
R187	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R188	1-218-965-11	RES-CHIP	10K	5%	1/16W
R199	1-218-958-11	RES-CHIP	2.7K	5%	1/16W
R201	1-218-941-81	RES-CHIP	100	5%	1/16W
R202	1-218-953-11	RES-CHIP	1K	5%	1/16W
R203	1-218-953-11	RES-CHIP	1K	5%	1/16W
R204	1-218-953-11	RES-CHIP	1K	5%	1/16W
R205	1-218-953-11	RES-CHIP	1K	5%	1/16W
R206	1-218-953-11	RES-CHIP	1K	5%	1/16W
R207	1-218-945-11	RES-CHIP	220	5%	1/16W
R208	1-218-953-11	RES-CHIP	1K	5%	1/16W
R209	1-218-945-11	RES-CHIP	220	5%	1/16W
R210	1-218-953-11	RES-CHIP	1K	5%	1/16W
R211	1-218-953-11	RES-CHIP	1K	5%	1/16W
R212	1-218-953-11	RES-CHIP	1K	5%	1/16W
R213	1-218-953-11	RES-CHIP	1K	5%	1/16W
R214	1-218-953-11	RES-CHIP	1K	5%	1/16W
R215	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R216	1-218-965-11	RES-CHIP	10K	5%	1/16W
R217	1-218-945-11	RES-CHIP	220	5%	1/16W
R218	1-218-945-11	RES-CHIP	220	5%	1/16W
R299	1-218-979-11	RES-CHIP	150K	5%	1/16W
R301	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R302	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R305	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R306	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R307	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R308	1-218-961-11	RES-CHIP	4.7K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R309	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R310	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R311	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R312	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R313	1-218-949-11	RES-CHIP	470	5%	1/16W
R314	1-218-949-11	RES-CHIP	470	5%	1/16W
R315	1-218-949-11	RES-CHIP	470	5%	1/16W
R316	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R317	1-218-965-11	RES-CHIP	10K	5%	1/16W
R318	1-218-990-11	SHORT	0		
R319	1-218-963-11	RES-CHIP	6.8K	5%	1/16W
R321	1-218-949-11	RES-CHIP	470	5%	1/16W
R320	1-218-990-11	SHORT	0		
R328	1-218-965-11	RES-CHIP	10K	5%	1/16W
R329	1-218-990-11	SHORT	0		
R330	1-218-990-11	SHORT	0		
R331	1-208-643-11	RES-CHIP	22	5%	1/16W
R332	1-218-990-11	SHORT	0		
R334	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R335	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R336	1-218-965-11	RES-CHIP	10K	5%	1/16W
R337	1-218-941-81	RES-CHIP	100	5%	1/16W
R338	1-208-715-11	METAL CHIP	22K	0.5%	1/16W
R341	1-208-707-11	METAL CHIP	10K	0.5%	1/16W
R342	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R343	1-218-945-11	METAL CHIP	220	0.5%	1/16W
R344	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R345	1-218-965-11	RES-CHIP	10K	5%	1/16W
R349	1-218-970-11	RES-CHIP	27K	5%	1/16W
R350	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R351	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R352	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R356	1-208-689-11	METAL CHIP	1.8K	0.5%	1/16W
R368	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R384	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R385	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R402	1-218-965-11	RES-CHIP	10K	5%	1/16W
R403	1-218-965-11	RES-CHIP	10K	5%	1/16W
R404	1-218-953-11	RES-CHIP	1K	5%	1/16W
R405	1-218-953-11	RES-CHIP	1K	5%	1/16W
R406	1-218-978-11	RES-CHIP	120K	5%	1/16W
R407	1-218-978-11	RES-CHIP	120K	5%	1/16W
R408	1-218-979-11	RES-CHIP	150K	5%	1/16W
R409	1-218-979-11	RES-CHIP	150K	5%	1/16W
R410	1-218-974-11	RES-CHIP	56K	5%	1/16W
R411	1-218-974-11	RES-CHIP	56K	5%	1/16W
R412	1-218-982-11	RES-CHIP	270K	5%	1/16W
R413	1-218-965-11	RES-CHIP	10K	5%	1/16W
R414	1-218-985-11	RES-CHIP	470K	5%	1/16W
R415	1-218-978-11	RES-CHIP	120K	5%	1/16W
R416	1-218-987-11	RES-CHIP	680K	5%	1/16W
R417	1-218-965-11	RES-CHIP	10K	5%	1/16W
R418	1-218-971-11	RES-CHIP	33K	5%	1/16W
R419	1-218-971-11	RES-CHIP	33K	5%	1/16W
R420	1-218-985-11	RES-CHIP	470K	5%	1/16W
R421	1-218-971-11	RES-CHIP	33K	5%	1/16W
R422	1-218-971-11	RES-CHIP	33K	5%	1/16W
R423	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R424	1-208-719-11	METAL CHIP	33K	0.5%	1/16W
R425	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R426	1-218-985-11	RES-CHIP	470K	5%	1/16W
R427	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R428	1-218-971-11	RES-CHIP	33K	5%	1/16W
R429	1-218-974-11	METAL CHIP	56K	0.5%	1/16W
R430	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R431	1-218-974-11	METAL CHIP	56K	0.5%	1/16W
R432	1-218-965-11	RES-CHIP	10K	5%	1/16W
R433	1-218-965-11	RES-CHIP	10K	5%	1/16W
R434	1-218-947-11	RES-CHIP	330	5%	1/16W
R435	1-218-965-11	RES-CHIP	10K	5%	1/16W
R439	1-218-990-11	SHORT	0		
R507	1-218-941-81	RES-CHIP	100	5%	1/16W
R508	1-218-990-11	SHORT	0		
R509	1-218-990-11	SHORT	0		
R510	1-218-965-11	RES-CHIP	10K	5%	1/16W
R511	1-218-945-11	RES-CHIP	220	5%	1/16W
R512	1-218-945-11	RES-CHIP	220	5%	1/16W
R513	1-218-945-11	RES-CHIP	220	5%	1/16W
R514	1-218-945-11	RES-CHIP	220	5%	1/16W
R515	1-218-945-11	RES-CHIP	220	5%	1/16W
R516	1-218-945-11	RES-CHIP	220	5%	1/16W
R517	1-218-965-11	RES-CHIP	10K	5%	1/16W
R518	1-218-954-11	RES-CHIP	1.2K	5%	1/16W
R522	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R524	1-218-965-11	RES-CHIP	10K	5%	1/16W
R525	1-218-965-11	RES-CHIP	10K	5%	1/16W
R532	1-218-965-11	RES-CHIP	10K	5%	1/16W
R533	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R554	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R593	1-218-953-11	RES-CHIP	1K	5%	1/16W
R596	1-218-953-11	RES-CHIP	1K	5%	1/16W
R600	1-218-941-81	RES-CHIP	100	5%	1/16W
R602	1-218-989-11	RES-CHIP	1M	5%	1/16W
R603	1-218-941-81	RES-CHIP	100	5%	1/16W
R604	1-218-941-81	RES-CHIP	100	5%	1/16W
R605	1-218-941-81	RES-CHIP	100	5%	1/16W
R606	1-218-941-81	RES-CHIP	100	5%	1/16W
R607	1-218-941-81	RES-CHIP	100	5%	1/16W
R608	1-218-953-11	RES-CHIP	1K	5%	1/16W
R609	1-218-949-11	RES-CHIP	470	5%	1/16W
R610	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R611	1-218-941-81	RES-CHIP	100	5%	1/16W
R612	1-218-973-11	RES-CHIP	47K	5%	1/16W
R613	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R614	1-218-971-11	RES-CHIP	33K	5%	1/16W
R615	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R616	1-218-962-11	RES-CHIP	5.6K	5%	1/16W
R617	1-218-990-11	SHORT	0		
R618	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R619	1-218-973-11	RES-CHIP	47K	5%	1/16W
R620	1-218-941-81	RES-CHIP	100	5%	1/16W
R621	1-218-941-81	RES-CHIP	100	5%	1/16W
R622	1-218-941-81	RES-CHIP	100	5%	1/16W
R623	1-218-941-81	RES-CHIP	100	5%	1/16W
R624	1-218-941-81	RES-CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R625	1-218-953-11	RES-CHIP	1K	5%	1/16W
R626	1-218-953-11	RES-CHIP	1K	5%	1/16W
R627	1-218-957-11	RES-CHIP	2.2K	5%	1/16W
R628	1-218-941-81	RES-CHIP	100	5%	1/16W
R629	1-218-941-81	RES-CHIP	100	5%	1/16W
R630	1-218-949-11	RES-CHIP	470	5%	1/16W
R631	1-218-941-81	RES-CHIP	100	5%	1/16W
R634	1-218-953-11	RES-CHIP	1K	5%	1/16W
R635	1-218-965-11	RES-CHIP	10K	5%	1/16W
R636	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R637	1-218-941-81	RES-CHIP	100	5%	1/16W
R639	1-218-941-81	RES-CHIP	100	5%	1/16W
R640	1-218-941-81	RES-CHIP	100	5%	1/16W
R642	1-218-941-81	RES-CHIP	100	5%	1/16W
R644	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R645	1-218-965-11	RES-CHIP	10K	5%	1/16W
R646	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R647	1-218-941-81	RES-CHIP	100	5%	1/16W
R648	1-218-941-81	RES-CHIP	100	5%	1/16W
R650	1-218-941-81	RES-CHIP	100	5%	1/16W
R651	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R652	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R653	1-218-941-81	RES-CHIP	100	5%	1/16W
R654	1-218-941-81	RES-CHIP	100	5%	1/16W
R655	1-218-941-81	RES-CHIP	100	5%	1/16W
R656	1-218-990-11	SHORT	0		
R657	1-218-941-81	RES-CHIP	100	5%	1/16W
R658	1-218-941-81	RES-CHIP	100	5%	1/16W
R659	1-218-935-11	RES-CHIP	33	5%	1/16W
R660	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R661	1-218-941-81	RES-CHIP	100	5%	1/16W
R662	1-218-941-81	RES-CHIP	100	5%	1/16W
R663	1-218-941-81	RES-CHIP	100	5%	1/16W
R664	1-218-941-81	RES-CHIP	100	5%	1/16W
R665	1-218-965-11	RES-CHIP	10K	5%	1/16W
R666	1-218-941-81	RES-CHIP	100	5%	1/16W
R667	1-218-941-81	RES-CHIP	100	5%	1/16W
R668	1-218-953-11	RES-CHIP	1K	5%	1/16W
R669	1-218-953-11	RES-CHIP	1K	5%	1/16W
R671	1-218-941-81	RES-CHIP	100	5%	1/16W
R672	1-218-941-81	RES-CHIP	100	5%	1/16W
R673	1-218-945-11	RES-CHIP	220	5%	1/16W
R674	1-218-945-11	RES-CHIP	220	5%	1/16W
R675	1-218-945-11	RES-CHIP	220	5%	1/16W
R676	1-218-945-11	RES-CHIP	220	5%	1/16W
R677	1-218-945-11	RES-CHIP	220	5%	1/16W
R679	1-218-941-81	RES-CHIP	100	5%	1/16W
R680	1-218-941-81	RES-CHIP	100	5%	1/16W
R682	1-218-965-11	RES-CHIP	10K	5%	1/16W
R684	1-218-965-11	RES-CHIP	10K	5%	1/16W
R685	1-218-941-81	RES-CHIP	100	5%	1/16W
R686	1-218-965-11	RES-CHIP	10K	5%	1/16W
R687	1-218-953-11	RES-CHIP	1K	5%	1/16W
R688	1-218-965-11	RES-CHIP	10K	5%	1/16W
R689	1-218-965-11	RES-CHIP	10K	5%	1/16W
R692	1-218-941-81	RES-CHIP	100	5%	1/16W
R695	1-218-941-81	RES-CHIP	100	5%	1/16W
R696	1-218-945-11	RES-CHIP	220	5%	1/16W
R699	1-218-941-81	RES-CHIP	100	5%	1/16W
R700	1-218-965-11	RES-CHIP	10K	5%	1/16W
R701	1-218-953-11	RES-CHIP	1K	5%	1/16W
R702	1-218-945-11	RES-CHIP	220	5%	1/16W
R801	1-218-990-11	SHORT	0		
R802	1-218-990-11	SHORT	0		
R803	1-218-990-11	SHORT	0		
R804	1-218-990-11	SHORT	0		
R805	1-218-990-11	SHORT	0		
R806	1-218-990-11	SHORT	0		
R807	1-218-990-11	SHORT	0		
R808	1-218-990-11	SHORT	0		
R810	1-218-965-11	RES-CHIP	10K	5%	1/16W
R811	1-218-965-11	RES-CHIP	10K	5%	1/16W
R812	1-218-965-11	RES-CHIP	10K	5%	1/16W
R813	1-218-965-11	RES-CHIP	10K	5%	1/16W
R814	1-218-965-11	RES-CHIP	10K	5%	1/16W
R815	1-218-965-11	RES-CHIP	10K	5%	1/16W
R816	1-218-965-11	RES-CHIP	10K	5%	1/16W
R817	1-218-965-11	RES-CHIP	10K	5%	1/16W
R821	1-218-990-11	SHORT	0		
R823	1-218-965-11	RES-CHIP	10K	5%	1/16W
R824	1-218-990-11	SHORT	0		
R826	1-208-643-11	RES-CHIP	22	5%	1/16W
R827	1-218-990-11	SHORT	0		
R828	1-218-990-11	SHORT	0		
R829	1-218-990-11	SHORT	0		
R830	1-218-965-11	RES-CHIP	10K	5%	1/16W
R831	1-218-990-11	SHORT	0		
R832	1-218-990-11	SHORT	0		
R833	1-218-990-11	SHORT	0		
R834	1-218-990-11	SHORT	0		
R835	1-218-990-11	SHORT	0		
R836	1-218-990-11	SHORT	0		
R837	1-218-990-11	SHORT	0		
R838	1-218-990-11	SHORT	0		
R839	1-218-990-11	SHORT	0		
R840	1-218-990-11	SHORT	0		
R841	1-218-990-11	SHORT	0		
R842	1-218-990-11	SHORT	0		
R843	1-218-990-11	SHORT	0		
R844	1-218-965-11	RES-CHIP	10K	5%	1/16W
R845	1-218-965-11	RES-CHIP	10K	5%	1/16W
R846	1-218-990-11	SHORT	0		
R847	1-218-990-11	SHORT	0		
R900	1-218-941-81	RES-CHIP	100	5%	1/16W
R901	1-218-941-81	RES-CHIP	100	5%	1/16W
R902	1-218-941-81	RES-CHIP	100	5%	1/16W
R903	1-218-941-81	RES-CHIP	100	5%	1/16W
R904	1-218-941-81	RES-CHIP	100	5%	1/16W
R905	1-218-941-81	RES-CHIP	100	5%	1/16W
R908	1-218-965-11	RES-CHIP	10K	5%	1/16W
R909	1-218-965-11	RES-CHIP	10K	5%	1/16W
R910	1-218-941-81	RES-CHIP	100	5%	1/16W
R911	1-218-941-81	RES-CHIP	100	5%	1/16W
R912	1-218-941-81	RES-CHIP	100	5%	1/16W
R913	1-218-941-81	RES-CHIP	100	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R914	1-218-941-81	RES-CHIP	100	5%	1/16W
R915	1-218-941-81	RES-CHIP	100	5%	1/16W
R916	1-218-941-81	RES-CHIP	100	5%	1/16W
R919	1-218-965-11	RES-CHIP	10K	5%	1/16W
R920	1-218-941-81	RES-CHIP	100	5%	1/16W
R921	1-218-941-81	RES-CHIP	100	5%	1/16W
R922	1-218-961-11	RES-CHIP	4.7K	5%	1/16W
R924	1-218-965-11	RES-CHIP	10K	5%	1/16W
R928	1-218-941-81	RES-CHIP	100	5%	1/16W
R929	1-218-989-11	RES-CHIP	1M	5%	1/16W
R930	1-218-965-11	RES-CHIP	10K	5%	1/16W
R931	1-218-945-11	RES-CHIP	220	5%	1/16W
R932	1-218-965-11	RES-CHIP	10K	5%	1/16W
R934	1-218-965-11	RES-CHIP	10K	5%	1/16W
R935	1-218-965-11	RES-CHIP	10K	5%	1/16W
					(AUS,E12,SP,EA)
R936	1-218-965-11	RES-CHIP	10K	5%	1/16W
					(US,CND,E32,MX)
R937	1-218-965-11	RES-CHIP	10K	5%	1/16W
					(E32,MX,EA)
R938	1-218-965-11	RES-CHIP	10K	5%	1/16W
					(US,CND,AUS,E12,SP)
R939	1-218-965-11	RES-CHIP	10K	5%	1/16W
					(E12,E32,SP,MX)
R940	1-218-965-11	RES-CHIP	10K	5%	1/16W
					(US,CND,AUS,EA)
R941	1-218-965-11	RES-CHIP	10K	5%	1/16W
R942	1-218-965-11	RES-CHIP	10K	5%	1/16W
R943	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R944	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R945	1-218-965-11	RES-CHIP	10K	5%	1/16W
R946	1-218-965-11	RES-CHIP	10K	5%	1/16W
R947	1-218-965-11	RES-CHIP	10K	5%	1/16W
R948	1-218-965-11	RES-CHIP	10K	5%	1/16W
R949	1-218-965-11	RES-CHIP	10K	5%	1/16W
R950	1-218-973-11	RES-CHIP	47K	5%	1/16W
R951	1-218-965-11	RES-CHIP	10K	5%	1/16W
R952	1-218-965-11	RES-CHIP	10K	5%	1/16W
R953	1-218-965-11	RES-CHIP	10K	5%	1/16W
R954	1-218-965-11	RES-CHIP	10K	5%	1/16W
R955	1-218-965-11	RES-CHIP	10K	5%	1/16W
R956	1-218-965-11	RES-CHIP	10K	5%	1/16W
R957	1-218-965-11	RES-CHIP	10K	5%	1/16W
R959	1-218-953-11	RES-CHIP	1K	5%	1/16W
R960	1-218-965-11	RES-CHIP	10K	5%	1/16W
R961	1-218-965-11	RES-CHIP	10K	5%	1/16W
R962	1-218-965-11	RES-CHIP	10K	5%	1/16W
R963	1-218-959-11	RES-CHIP	3.3K	5%	1/16W
R964	1-218-973-11	RES-CHIP	47K	5%	1/16W
R967	1-218-941-81	RES-CHIP	100	5%	1/16W
R968	1-218-941-81	RES-CHIP	100	5%	1/16W
R969	1-218-941-81	RES-CHIP	100	5%	1/16W
R970	1-218-941-81	RES-CHIP	100	5%	1/16W
R971	1-218-941-81	RES-CHIP	100	5%	1/16W
R972	1-218-965-11	RES-CHIP	10K	5%	1/16W
R974	1-218-990-11	SHORT	0		
R978	1-218-965-11	RES-CHIP	10K	5%	1/16W
R979	1-218-965-11	RES-CHIP	10K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R982	1-218-965-11	RES-CHIP	10K	5%	1/16W
R983	1-218-965-11	RES-CHIP	10K	5%	1/16W
R984	1-218-965-11	RES-CHIP	10K	5%	1/16W
R985	1-218-985-11	RES-CHIP	470K	5%	1/16W
R986	1-218-973-11	RES-CHIP	47K	5%	1/16W
R987	1-218-973-11	RES-CHIP	47K	5%	1/16W
R988	1-218-990-11	SHORT	0		
R989	1-218-990-11	SHORT	0		
R990	1-218-965-11	RES-CHIP	10K	5%	1/16W
R991	1-218-965-11	RES-CHIP	10K	5%	1/16W
R992	1-218-965-11	RES-CHIP	10K	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
* RB201	1-233-270-11	NETWORK, RES (8 GANG) 10K			
		< VARIABLE RESISTOR >			
RV501	1-223-583-11	RES, ADJ, CARBON 1K			
		< VIBRATOR >			
X101	1-795-174-11	VIBRATOR, CERAMIC (16.5MHz)			
X102	1-795-630-11	VIBRATOR, CRYSTAL			
X600	1-795-126-21	VIBRATOR, CRYSTAL (12.288MHz)			
X601	1-795-363-21	VIBRATOR, CERAMIC (13.5MHz)			
X901	1-767-922-11	VIBRATOR, CERAMIC (16MHz)			

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Ref. No.	Part No.	Description			Remarks
	A-4676-753-A	FP 1179 BOARD, COMPLETE			
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	4-234-908-01	HOLDER (FL)			
		< CAPACITOR >			
C802	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C803	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C804	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C805	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C806	1-126-153-11	ELECT	22uF	20%	6.3V
C812	1-124-589-11	ELECT	47uF	20%	16V
C813	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C814	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C815	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C816	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C817	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C818	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C819	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN801	1-785-731-11	CONNECTOR, FFC/FPC 17P			
CN802	1-506-481-11	PIN, CONNECTOR 2P			
* CN804	1-506-486-11	PIN, CONNECTOR 7P			
		< FERRITE BEAD >			
FB800	1-414-813-11	FERRITE	0UH		
FB801	1-414-813-11	FERRITE	0UH		
FB802	1-414-813-11	FERRITE	0UH		
FB806	1-469-324-21	FERRITE	0UH (US,CND,MX)		
FB806	1-216-864-11	METAL CHIP	0	5%	1/16W
					(EXCEPT US,CND,MX)

Ref. No.	Part No.	Description			Remarks
FB807	1-469-324-21	FERRITE	0UH (US,CND,MX)		
FB807	1-216-864-11	METAL CHIP	0	5%	1/16W
					(EXCEPT US,CND,MX)
		< FILTER >			
FL801	1-518-767-21	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC801	8-759-366-45	IC NJU3713G(TE2)			
IC802	6-700-112-01	IC MSM9202-05GS-KDR1			
		< JUMPER RESISTOR >			
JR800	1-216-864-11	METAL CHIP	0	5%	1/16W
JR801	1-216-864-11	METAL CHIP	0	5%	1/16W
JR802	1-216-864-11	METAL CHIP	0	5%	1/16W
JR805	1-216-864-11	METAL CHIP	0	5%	1/16W
JR806	1-216-864-11	METAL CHIP	0	5%	1/16W
		< TRANSISTOR >			
Q801	8-729-602-36	TRANSISTOR	2SA1602TP-1EF		
		< RESISTOR >			
R805	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R810	1-216-809-11	METAL CHIP	100	5%	1/16W
R811	1-216-809-11	METAL CHIP	100	5%	1/16W
R812	1-216-809-11	METAL CHIP	100	5%	1/16W
R813	1-216-809-11	METAL CHIP	100	5%	1/16W
R814	1-216-841-11	METAL CHIP	47K	5%	1/16W
R839	1-216-864-11	METAL CHIP	0	5%	1/16W
R840	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R841	1-216-809-11	METAL CHIP	100	5%	1/16W
R842	1-216-809-11	METAL CHIP	100	5%	1/16W
R843	1-216-809-11	METAL CHIP	100	5%	1/16W
R845	1-216-833-11	METAL CHIP	10K	5%	1/16W

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Ref. No.	Part No.	Description			Remarks
	1-681-999-13	FU 1179 BOARD *************			
		< CAPACITOR >			
C800	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C801	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C808	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C809	1-126-153-11	ELECT	22uF	20%	6.3V
		< IC >			
IC800	8-759-827-70	IC NJL64H400A-1 (R)			
		< RESISTOR >			
R809	1-216-813-11	METAL CHIP	220	5%	1/16W
R815	1-216-805-11	METAL CHIP	47	5%	1/16W
R837	1-216-815-11	METAL CHIP	330	5%	1/16W
R838	1-216-805-11	METAL CHIP	47	5%	1/16W
R844	1-216-817-11	METAL CHIP	470	5%	1/16W
R849	1-216-819-11	METAL CHIP	680	5%	1/16W
R860	1-216-821-11	METAL CHIP	1K	5%	1/16W
R870	1-216-864-11	METAL CHIP	0	5%	1/16W
R871	1-216-864-11	METAL CHIP	0	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R873	1-216-813-11	METAL CHIP	220	5%	1/16W
		< ROTARY ENCODER/SWITCH >			
S800	1-418-632-11	ENCODER, ROTARY (VOLUME)			
S821	1-762-875-21	SWITCH, KEYBOARD (SOUND FIELD+)			
S822	1-762-875-21	SWITCH, KEYBOARD (SOUND FIELD-)			
S823	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)			
S824	1-762-875-21	SWITCH, KEYBOARD (BAND)			
S825	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			

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Ref. No.	Part No.	Description			Remarks
	1-682-003-13	HP 1179 BOARD **************			
		< CAPACITOR >			
C900	1-126-204-11	ELECT CHIP	47uF	20%	16V
C901	1-126-204-11	ELECT CHIP	47uF	20%	16V
C902	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C903	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C904	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
		< FERRITE BEAD >			
FB803	1-412-006-31	INDUCTOR	10UH (US,CND,MX)		
FB803	1-469-144-21	FERRITE	0UH (EXCEPT US,CND,MX)		
FB804	1-412-006-31	INDUCTOR	10UH (US,CND,MX)		
FB804	1-469-144-21	FERRITE	0UH (EXCEPT US,CND,MX)		
FB805	1-412-006-31	INDUCTOR	10UH (US,CND,MX)		
FB805	1-469-144-21	FERRITE	0UH (EXCEPT US,CND,MX)		
		< JACK >			
J900	1-566-891-21	JACK (PHONES)			
		< COIL >			
L900	1-410-387-11	INDUCTOR CHIP	33uH (EXCEPT US,CND,MX)		
L900	1-410-993-11	INDUCTOR CHIP	1uH (US,CND,MX)		
L901	1-410-387-11	INDUCTOR CHIP	33uH (EXCEPT US,CND,MX)		
L901	1-410-993-11	INDUCTOR CHIP	1uH (US,CND,MX)		
L903	1-412-006-31	INDUCTOR	10uH (US,CND,MX)		
L903	1-469-144-21	FERRITE	0uH (EXCEPT US,CND,MX)		
L904	1-412-006-31	INDUCTOR	10uH (US,CND,MX)		
L904	1-469-144-21	FERRITE	0uH (EXCEPT US,CND,MX)		
		< TRANSISTOR >			
Q900	8-729-046-97	TRANSISTOR	2SD1938(F)-T(TX).SO		
Q901	8-729-046-97	TRANSISTOR	2SD1938(F)-T(TX).SO		
		< RESISTOR >			
R900	1-216-864-11	METAL CHIP	0	5%	1/16W
R901	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R902	1-216-864-11	METAL CHIP	0	5%	1/16W
R903	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R905	1-216-821-11	METAL CHIP	1K	5%	1/16W
R906	1-216-821-11	METAL CHIP	1K	5%	1/16W

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I/O

Ref. No.	Part No.	Description			Remarks
	A-4676-746-A	I/O BOARD, COMPLETE (US,CND)			
	A-4729-822-A	I/O BOARD, COMPLETE (E12,SP,EA)			
	A-4729-830-A	I/O BOARD, COMPLETE (AUS)			
	A-4729-845-A	I/O BOARD, COMPLETE (E32,MX)			
		*******************			
		< CAPACITOR >			
C600	1-128-551-11	ELECT	22uF	20.00%	25V
C601	1-128-551-11	ELECT	22uF	20.00%	25V
C602	1-126-933-11	ELECT	100uF	20.00%	16V
C603	1-126-960-11	ELECT	1uF	20.00%	50V
C604	1-126-960-11	ELECT	1uF	20.00%	50V
C605	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C606	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C608	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C609	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C610	1-128-551-11	ELECT	22uF	20.00%	25V
C611	1-128-551-11	ELECT	22uF	20.00%	25V
C613	1-128-551-11	ELECT	22uF	20.00%	25V
C614	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C615	1-128-551-11	ELECT	22uF	20.00%	25V
C616	1-128-551-11	ELECT	22uF	20.00%	25V
C617	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C620	1-128-551-11	ELECT	22uF	20.00%	25V
C621	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C622	1-128-551-11	ELECT	22uF	20.00%	25V
C623	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C624	1-128-551-11	ELECT	22uF	20.00%	25V
C625	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C626	1-128-551-11	ELECT	22uF	20.00%	25V
C627	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C628	1-126-933-11	ELECT	100uF	20.00%	16V
C630	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C631	1-128-551-11	ELECT	22uF	20.00%	25V
C632	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C661	1-126-964-11	ELECT	10uF	20.00%	50V
C662	1-126-964-11	ELECT	10uF	20.00%	50V
C671	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C672	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C700	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C701	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C705	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C706	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C708	1-126-933-11	ELECT	100uF	20.00%	16V
C712	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C713	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C720	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C721	1-124-261-00	ELECT	10uF	20%	50V
C722	1-126-157-11	ELECT	10uF	20%	16V
C724	1-125-972-61	ELECT	100uF	20.00%	16V
C725	1-124-234-00	ELECT	22uF	20%	16V
C727	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C728	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C730	1-125-972-61	ELECT	100uF	20.00%	16V
C731	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C732	1-125-972-61	ELECT	100uF	20.00%	16V
C733	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C734	1-124-234-00	ELECT	22uF	20%	16V

Ref. No.	Part No.	Description			Remarks
C735	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C737	1-124-261-00	ELECT	10uF	20%	50V
C738	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C739	1-216-864-11	METAL CHIP	0	5%	1/16W
C740	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C741	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C753	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C754	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C758	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C759	1-126-933-11	ELECT	100uF	20.00%	16V
C791	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C792	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C793	1-162-302-11	CERAMIC	0.0022uF	30.00%	16V
C795	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
					(US,CND)
C802	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C803	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
		< CONNECTOR >			
CN600	1-794-431-11	CONNECTOR, FFC/FPC 13P			
CN601	1-779-297-11	CONNECTOR,FFC(LIF(NON-ZIF))29P			
CN700	1-779-550-21	CONNECTOR,FFC(LIF(NON-ZIF))13P			
* CN701	1-566-004-11	PIN, CONNECTOR (PC BOARD) 7P			
		< DIODE >			
D601	8-719-056-85	DIODE UDZSTE-178.2B			
D611	8-719-404-50	DIODE MA111-TX			
D612	8-719-404-50	DIODE MA111-TX			
		< FERRITE BEAD >			
FB601	1-469-324-21	FERRITE	0UH		
FB611	1-469-324-21	FERRITE	0UH		
FB612	1-469-324-21	FERRITE	0UH (US,CND)		
FB612	1-216-864-11	METAL CHIP	0	5%	1/16W
					(EXCEPT US,CND)
FB613	1-469-324-21	FERRITE	0UH (US,CND)		
FB613	1-216-864-11	METAL CHIP	0	5%	1/16W
					(EXCEPT US,CND)
FB614	1-216-864-11	METAL CHIP	0	5%	1/16W
FB615	1-469-324-21	FERRITE	0UH		
		< IC >			
IC600	8-759-385-76	IC MC14052 BDR2			
IC601	8-759-646-52	IC KIA7805API			
IC602	8-749-923-05	IC TORX178B (AUDIO 2 OPTICAL DIGITAL IN)			
IC701	8-759-680-28	IC BA7666FS-E2			
IC702	8-759-284-49	IC NJM2285V-TE2			
		< JACK >			
J600	1-779-688-11	JACK, PIN 6P (AUDIO 1/AUDIO 2))			
J700	1-815-748-21	JACK, PIN 2P (MONITOR OUT)			
		< COIL >			
L600	1-216-295-91	SHORT CHIP	0		
L601	1-469-525-91	INDUCTOR	10uH		
L602	1-414-398-11	INDUCTOR	10uH		
L603	1-414-398-11	INDUCTOR	10uH		
L700	1-412-953-11	INDUCTOR	15uH		

Ref. No.	Part No.	Description			Remarks
L702	1-469-525-91	INDUCTOR	10uH		
L703	1-412-953-11	INDUCTOR	15uH		
L705	1-412-953-11	INDUCTOR	15uH		
L707	1-469-525-91	INDUCTOR	10uH		
L708	1-412-953-11	INDUCTOR	15uH		
L710	1-412-953-11	INDUCTOR	15uH		
		< TRANSISTOR >			
Q600	8-729-801-93	TRANSISTOR	2SD1387-34-TP		
Q601	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q602	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
Q603	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
Q604	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
Q605	8-729-920-31	TRANSISTOR	DTC343TK-T-146		
Q606	8-729-920-31	TRANSISTOR	DTC343TK-T-146		
Q700	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R		
Q701	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q702	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q703	8-729-024-91	TRANSISTOR	2SC2712-GL-TE85L		
Q704	1-801-806-11	TRANSISTOR	DTC144EKA-T146		
Q711	8-729-030-13	TRANSISTOR	2SK680A-T1		
Q714	8-729-901-00	TRANSISTOR	DTC124EKA-T146		
		< RESISTOR >			
R600	1-216-813-11	METAL CHIP	220	5%	1/16W
R601	1-216-813-11	METAL CHIP	220	5%	1/16W
R602	1-216-813-11	METAL CHIP	220	5%	1/16W
R603	1-216-813-11	METAL CHIP	220	5%	1/16W
R604	1-216-813-11	METAL CHIP	220	5%	1/16W
R605	1-216-823-11	METAL CHIP	1.5K	5%	1/16W
R606	1-216-830-11	METAL CHIP	5.6K	5%	1/16W (AUS)
R606	1-218-272-11	RES-CHIP	5.1K	5%	1/10W (EXCEPT AUS)
R607	1-216-830-11	METAL CHIP	5.6K	5%	1/16W (AUS)
R607	1-218-272-11	RES-CHIP	5.1K	5%	1/10W (EXCEPT AUS)
R608	1-469-324-21	FERRITE	0UH		
R609	1-216-833-11	METAL CHIP	10K	5%	1/16W (EXCEPT AUS)
R609	1-216-839-11	METAL CHIP	33K	5%	1/16W (AUS)
R610	1-216-833-11	METAL CHIP	10K	5%	1/16W
R611	1-216-809-11	METAL CHIP	100	5%	1/16W
R612	1-216-833-11	METAL CHIP	10K	5%	1/16W (EXCEPT AUS)
R612	1-216-839-11	METAL CHIP	33K	5%	1/16W (AUS)
R613	1-216-833-11	METAL CHIP	10K	5%	1/16W
R614	1-216-809-11	METAL CHIP	100	5%	1/16W
R615	1-216-845-11	METAL CHIP	100K	5%	1/16W
R616	1-216-845-11	METAL CHIP	100K	5%	1/16W
R617	1-216-833-11	METAL CHIP	10K	5%	1/16W (EXCEPT AUS)
R617	1-216-839-11	METAL CHIP	33K	5%	1/16W (AUS)
R618	1-216-833-11	METAL CHIP	10K	5%	1/16W (EXCEPT AUS)
R618	1-216-839-11	METAL CHIP	33K	5%	1/16W (AUS)
R619	1-216-821-11	METAL CHIP	1K	5%	1/16W
R620	1-216-821-11	METAL CHIP	1K	5%	1/16W
R621	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R622	1-216-833-11	METAL CHIP	10K	5%	1/16W
R623	1-216-821-11	METAL CHIP	1K	5%	1/16W
R624	1-216-841-11	METAL CHIP	47K	5%	1/16W
R625	1-216-833-11	METAL CHIP	10K	5%	1/16W
R626	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R627	1-216-833-11	METAL CHIP	10K	5%	1/16W
R628	1-216-833-11	METAL CHIP	10K	5%	1/16W
R629	1-216-841-11	METAL CHIP	47K	5%	1/16W
R630	1-216-833-11	METAL CHIP	10K	5%	1/16W
R631	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/16W
R633	1-216-821-11	METAL CHIP	1K	5%	1/16W
R634	1-216-833-11	METAL CHIP	10K	5%	1/16W
R635	1-216-841-11	METAL CHIP	47K	5%	1/16W
R636	1-216-833-11	METAL CHIP	10K	5%	1/16W
R637	1-218-867-11	RES-CHIP	6.8K	5%	1/10W
R638	1-216-833-11	METAL CHIP	10K	5%	1/16W
R639	1-216-841-11	METAL CHIP	47K	5%	1/16W
R640	1-216-833-11	METAL CHIP	10K	5%	1/16W
R641	1-216-809-11	METAL CHIP	100	5%	1/16W
R649	1-216-845-11	METAL CHIP	100K	5%	1/16W
R650	1-216-845-11	METAL CHIP	100K	5%	1/16W
R700	1-218-289-11	RES-CHIP	510	5%	1/10W
R701	1-218-289-11	RES-CHIP	510	5%	1/10W
R702	1-218-289-11	RES-CHIP	510	5%	1/10W
R705	1-218-285-11	RES-CHIP	75	5%	1/10W
R707	1-218-285-11	RES-CHIP	75	5%	1/10W
R708	1-216-809-11	METAL CHIP	100	5%	1/16W
R709	1-218-285-11	RES-CHIP	75	5%	1/10W
R711	1-216-837-11	METAL CHIP	22K	5%	1/16W
R712	1-216-821-11	METAL CHIP	1K	5%	1/16W
R713	1-216-837-11	METAL CHIP	22K	5%	1/16W
R714	1-216-833-11	METAL CHIP	10K	5%	1/16W
R716	1-216-815-11	METAL CHIP	330	5%	1/16W
R717	1-216-833-11	METAL CHIP	10K	5%	1/16W
R718	1-216-833-11	METAL CHIP	10K	5%	1/16W
R719	1-216-817-11	METAL CHIP	470	5%	1/16W
R720	1-216-817-11	METAL CHIP	470	5%	1/16W
R721	1-216-833-11	METAL CHIP	10K	5%	1/16W
R722	1-216-833-11	METAL CHIP	10K	5%	1/16W
R723	1-216-833-11	METAL CHIP	10K	5%	1/16W
R727	1-218-289-11	RES-CHIP	510	5%	1/10W
R728	1-218-289-11	RES-CHIP	510	5%	1/10W
R791	1-216-833-11	METAL CHIP	10K	5%	1/16W
R792	1-216-821-11	METAL CHIP	1K	5%	1/16W

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Ref. No.	Part No.	Description	Remarks
	1-675-723-21	IN SW BOARD ************	
		< CONNECTOR >	
* CN710	1-568-941-11	PIN, CONNECTOR 3P	

Ref. No.	Part No.	Description			Remarks
		< SWITCH >			
S703	1-771-218-11	SWITCH, MICRO (MID IN)			
S704	1-771-218-11	SWITCH, MICRO (IN)			

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	1-675-724-21	INIT/COUNT SW BOARD			
		********************			
S705	1-771-264-11	SWITCH, PUSH (DETECTION) (1 KEY) (INIT)			
S706	1-771-264-11	SWITCH, PUSH (DETECTION) (1 KEY) (COUNT)			

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	1-675-728-21	LOAD MOTOR BOARD			
		******************			
		< CAPACITOR >			
C703	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C704	1-126-964-11	ELECT	10uF	20.00%	50V
C705	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
C712	1-162-306-11	CERAMIC	0.01uF	30.00%	16V
		< CONNECTOR >			
* CN713	1-568-954-11	PIN, CONNECTOR 5P			
		< DIODE >			
D702	8-719-109-85	DIODE MTZJ-T-77-5.1B			
		< IC >			
IC702	8-759-633-65	IC M54641L			
		< RESISTOR >			
R703	1-249-411-11	CARBON	330	5%	1/4W
R704	1-249-401-11	CARBON	47	5%	1/4W F

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	1-675-725-21	OUT SW BOARD			
		*************			
		< CONNECTOR >			
* CN709	1-568-943-11	PIN, CONNECTOR 5P			
CN715	1-506-481-11	PIN, CONNECTOR 2P			
		< SWITCH >			
S701	1-771-218-11	SWITCH, MICRO (MID OUT)			
S702	1-771-218-11	SWITCH, MICRO (LID)			
S708	1-771-218-11	SWITCH, MICRO (OUT)			

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	A-4676-738-A	POWER BOARD, COMPLETE (US,CND)			
	A-4729-814-A	POWER BOARD, COMPLETE (AUS,E12,SP,EA)			
	A-4729-838-A	POWER BOARD, COMPLETE (MX)			
	A-4729-840-A	POWER BOARD, COMPLETE (E32)			
		*************************			
	1-533-233-11	HOLDER, FUSE			
		< CAPACITOR >			
⚠C901	1-117-703-11	CERAMIC	0.0047uF	99%	250V (US,CND,MX)

Ref. No.	Part No.	Description			Remarks
⚠C901	1-117-699-11	CERAMIC	0.001uF	99%	250V (E32)
⚠C902	1-165-528-11	MYLAR	0.1uF	10	275V
⚠C903	1-162-290-31	CERAMIC	470PF	10%	50V
⚠C904	1-165-528-11	MYLAR	0.1uF	10	275V
⚠C905	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (US,CND,MX)
⚠C905	1-113-915-11	CERAMIC	0.001uF	20.00%	250V (EXCEPT US,CND,MX)
⚠C906	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (US,CND,MX)
⚠C906	1-113-915-11	CERAMIC	0.001uF	20.00%	250V (EXCEPT US,CND,MX)
⚠C907	1-164-159-21	CERAMIC	0.1uF		50V (US,CND,MX)
⚠C907	1-115-340-11	CERAMIC CHIP	0.22uF	10.00%	25V (EXCEPT US,CND,MX)
⚠C908	1-113-920-11	CERAMIC	0.0022uF	20.00%	50V (US,CND,MX)
⚠C908	1-113-915-11	CERAMIC	0.001uF	20.00%	250V (EXCEPT US,CND,MX)
C909	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (AUS,E12,E32,SP,EA)
C910	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (AUS,E12,E32,SP,EA)
C911	1-113-920-11	CERAMIC	0.0022uF	20.00%	250V (AUS,E12,E32,SP,EA)
⚠C912	1-137-994-31	ELECT	820uF	20%	200V (US,CND)
⚠C912	1-165-911-21	ELECT	390uF	20%	450V (EXCEPT US,CND,MX)
⚠C913	1-136-203-11	FILM	10000PF	5.00%	630V (US,CND,MX)
⚠C913	1-117-452-11	FILM	3300PF	5.00%	630V (EXCEPT US,CND,MX)
⚠C914	1-126-967-11	ELECT	47uF	20.00%	50V
⚠C915	1-162-286-21	CERAMIC	220PF	10.00%	50V (US,CND,MX)
⚠C915	1-162-292-31	CERAMIC	680PF	10%	50V (EXCEPT US,CND,MX)
⚠C916	1-117-454-11	FILM	4700PF	5.00%	630V (US,CND,MX)
⚠C916	1-125-772-51	CERAMIC	1500PF	10.00%	2KV (EXCEPT US,CND,MX)
C917	1-113-907-51	CERAMIC	0.0022uF	99%	250V (US,CND,MX)
C918	1-115-339-11	CERAMIC CHIP	0.1uF	10.00%	50V
C919	1-115-789-11	ELECT	1000uF	20.00%	25V
C920	1-136-203-11	FILM	10000PF	5.00%	630V (US,CND,MX)
C920	1-117-454-11	FILM	4700PF	5.00%	630V (EXCEPT US,CND,MX)
C921	1-115-819-11	ELECT	2200uF	20.00%	35V
C922	1-128-560-11	ELECT	22uF	20.00%	100V
C923	1-115-819-11	ELECT	2200uF	20.00%	35V
C924	1-126-953-11	ELECT	2200uF	20.00%	35V
C925	1-126-160-11	ELECT	1uF	20%	50V

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Ref. No.	Part No.	Description	Remarks
C926	1-115-339-11	CERAMIC CHIP 0.1uF 10.00%	50V
C927	1-115-339-11	CERAMIC CHIP 0.1uF 10.00%	50V
C928	1-126-926-11	ELECT 1000uF 20.00%	10V
C929	1-124-584-00	ELECT 100uF 20%	10V
C930	1-115-339-11	CERAMIC CHIP 0.1uF 10.00%	50V
C931	1-126-916-11	ELECT 1000uF 20.00%	6.3V
C932	1-115-339-11	CERAMIC CHIP 0.1uF 10.00%	50V
C933	1-126-768-11	ELECT 2200uF 20.00%	16V
C936	1-163-809-11	CERAMIC CHIP 0.047uF 10%	25V
		< CONNECTOR >	
CN901	1-564-321-00	PIN, CONNECTOR (3.96MM PITCH) 2P	
* CN902	1-564-321-21	PIN, CONNECTOR (3.96MM PITCH) 2P	
* CN904	1-564-778-11	PLUG, CONNECTOR (2.5MM) 4P	
* CN905	1-506-994-11	PIN, CONNECTOR (PC BOARD) 12P	(US,CND,MX)
		< DIODE >	
⚠D901	8-719-210-21	DIODE 11EQS04-TA1B	
⚠D902	8-719-022-92	DIODE RBV-604 (US,CND,MX)	
⚠D902	8-719-312-05	DIODE RBV-606 (EXCEPT US,CND,MX)	
⚠D903	8-719-010-98	DIODE MTZJ-T-77-22A	
⚠D904	8-719-110-61	DIODE MTZJ-T-77-24A	
⚠D905	8-719-200-91	DIODE 11EQS10-TA1	
⚠D906	8-719-200-91	DIODE 11EQS10-TA1	
⚠D907	8-719-200-91	DIODE 11EQS10-TA1	
⚠D908	6-500-071-01	DIODE SARS02-V1 (US,CND,MX)	
⚠D908	8-719-080-26	DIODE SARS01V0 (EXCEPT US,CND,MX)	
D909	8-719-312-08	DIODE FMB-G16L	
D910	8-719-200-91	DIODE 11EQS10-TA1	
D911	8-719-313-14	DIODE FML-22S	
D912	8-719-110-42	DIODE MTZJ-T-77-15C	
D913	8-719-404-50	DIODE MA111-TX	
D914	8-719-210-21	DIODE 11EQS04-TA1B	
D915	8-719-404-50	DIODE MA111-TX	
D916	8-719-210-21	DIODE 11EQS04-TA1B	
D917	8-719-200-82	DIODE 11ES2-NTA1B	
D918	8-719-404-50	DIODE MA111-TX	
		< TERMINAL >	
EB901	1-537-770-21	TERMINAL BOARD, GROUND	
EB902	1-537-770-21	TERMINAL BOARD, GROUND	
		< FERRITE BEAD >	
FB901	1-412-473-21	INDUCTOR 0UH	
		< IC >	
⚠IC901	8-749-017-79	IC STR-F6676	
IC902	6-700-388-01	IC SE-B2	
IC903	6-700-812-01	IC SI-8050JF	
IC904	8-759-332-29	IC M51945BL	
IC905	8-759-231-53	IC TA7805S (US,CND,MX)	
IC905	8-759-450-47	IC BA05T (EXCEPT US,CND,MX)	
IC906	6-700-813-01	IC SI-8033JF	
IC907	8-759-390-72	IC TC4S584F(TE85R)	
		< COIL >	
L901	1-424-860-11	INDUCTOR 10uH	

Ref. No.	Part No.	Description	Remarks
L902	1-419-253-11	INDUCTOR 100uH	
L903	1-419-253-11	INDUCTOR 100uH	
L904	1-414-398-11	INDUCTOR 10uH	
L905	1-414-398-11	INDUCTOR 10uH	
L906	1-414-398-11	INDUCTOR 10uH	
L907	1-414-398-11	INDUCTOR 10uH	
L908	1-414-398-11	INDUCTOR 10uH	
		< LINE FILTER >	
⚠LF901	1-424-930-11	COIL, LINE FILTER (EXCEPT E32)	
⚠LF901	1-428-906-11	COIL, LINE FILTER (E32)	
LF902	1-424-930-11	COIL, LINE FILTER (AUS,E12,SP,EA)	
LF902	1-428-906-11	COIL, LINE FILTER (E32)	
		< IC >	
⚠PC901	8-749-019-04	IC TLP421	
⚠PC902	8-749-019-04	IC TLP421	
		< TRANSISTOR >	
⚠Q901	8-729-119-76	TRANSISTOR 2SA1175TP-HFE	
⚠Q902	8-729-140-04	TRANSISTOR 2SB1116A-TP-LK	
⚠Q903	8-729-111-29	TRANSISTOR 2SD1616A-TP-LK	
Q905	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q906	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q907	8-729-030-19	TRANSISTOR 2SB1640(TP)	
Q908	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q909	8-729-027-49	TRANSISTOR DTC123EKA-T146	
Q910	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q911	8-729-900-53	TRANSISTOR DTC114EKA-T146	
Q915	8-729-900-53	TRANSISTOR DTC114EKA-T146	
		< RESISTOR >	
⚠R900	1-219-237-11	SOLID 3.3M 20%	1/2W (US,CND,MX)
⚠R901	1-249-415-11	CARBON 680 5%	1/4W F
⚠R902	1-243-979-31	METAL OXIDE 0.1 5%	2W (US,CND,MX)
⚠R902	1-216-361-31	METAL OXIDE 0.22 5%	2W (EXCEPT US,CND,MX)
⚠R903	1-245-261-31	METAL OXIDE 0.12 5%	2W (US,CND,MX)
⚠R903	1-245-277-31	METAL OXIDE 0.36 5%	2W (E32)
⚠R903	1-245-266-31	METAL OXIDE 0.24 5%	2W (AUS,E12,SP,EA)
⚠R904	1-247-881-00	CARBON 120K 5%	1/4W
⚠R905	1-249-439-11	CARBON 68K 5%	1/4W
⚠R906	1-249-424-11	CARBON 3.9K 5%	1/4W F
⚠R907	1-249-425-11	CARBON 4.7K 5%	1/4W F
⚠R908	1-215-878-00	METAL OXIDE 33K 5%	1W (US,CND,MX)
⚠R908	1-215-904-11	METAL OXIDE 100K 5%	2W (EXCEPT US,CND,MX)
⚠R909	1-220-388-11	METAL OXIDE 68K 5%	1W (US,CND,MX)

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POWER **PW 1179** **RF-240**

Ref. No.	Part No.	Description			Remarks
⚠R909	1-260-132-11	CARBON	560K	5%	1/2W (EXCEPT US,CND,MX)
⚠R910	1-215-884-31	METAL OXIDE	47	5%	2W
⚠R911	1-249-425-11	CARBON	4.7K	5%	1/4W F
⚠R912	1-249-426-11	CARBON	5.6K	5%	1/4W
⚠R913	1-249-399-11	CARBON	33	5%	1/4W F
R914	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R915	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R916	1-249-421-11	CARBON	2.2K	5%	1/4W F
R917	1-249-420-11	CARBON	1.8K	5%	1/4W F (US,CND,MX)
R917	1-249-422-11	CARBON	2.7K	5%	1/4W F (EXCEPT US,CND,MX)
⚠R918	1-215-884-31	METAL OXIDE	47	5%	2W
R919	1-215-433-00	METAL	3.3K	1%	1/4W
R920	1-215-457-00	METAL	33K	1%	1/4W
R921	1-216-847-11	METAL CHIP	150K	5%	1/16W
R922	1-216-841-11	METAL CHIP	47K	5%	1/16W
R923	1-216-833-11	METAL CHIP	10K	5%	1/16W
R924	1-216-818-11	METAL CHIP	560	5%	1/16W
R925	1-216-812-11	METAL CHIP	180	5%	1/16W
R926	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R927	1-215-865-31	METAL OXIDE	220	5%	1W
R928	1-216-841-11	METAL CHIP	47K	5%	1/16W
R929	1-216-809-11	METAL CHIP	100	5%	1/16W
R930	1-219-237-11	SOLID	3.3M	20%	1/2W (AUS,E12,SP,EA)
R931	1-247-791-91	CARBON	22	5%	1/4W (AUS,E12,E32,SP,EA)
R932	1-216-848-11	METAL CHIP	180K	5%	1/16W
R933	1-216-841-11	METAL CHIP	47K	5%	1/16W
R934	1-216-837-11	METAL CHIP	22K	5%	1/16W
		< TRANSFORMER >			
⚠T901	1-437-414-11	TRANSFORMER, POWER (US,CND,MX)			
⚠T901	1-437-415-11	TRANSFORMER, POWER (EXCEPT US,CND,MX)			
		< THERMISTOR >			
⚠TH901	1-803-916-11	THERMISTOR, NTC			

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	1-682-002-13	PW 1179 BOARD **************			
		< DIODE >			
D812	8-719-074-42	DIODE SLR325VR-T31 (POWER)			
		< RESISTOR >			
R804	1-216-815-11	METAL CHIP	330	5%	1/16W

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Ref. No.	Part No.	Description			Remarks
	A-4726-883-A	RF-240 BOARD, COMPLETE **********************			
		< CAPACITOR >			
C001	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C002	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C005	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C006	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C007	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C008	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C009	1-124-779-00	ELECT CHIP	10uF	20%	16V
C015	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C016	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C017	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C018	1-115-416-11	CERAMIC CHIP	0.001uF	5.00%	25V
C019	1-164-739-11	CERAMIC CHIP	560PF	5.00%	50V
C021	1-124-779-00	ELECT CHIP	10uF	20%	16V
C022	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C023	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C024	1-115-416-11	CERAMIC CHIP	0.001uF	5.00%	25V
C025	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C026	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C027	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C028	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C031	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C032	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C033	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C034	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C035	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C036	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
C038	1-165-176-11	CERAMIC CHIP	0.047uF	10.00%	16V
C039	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C040	1-164-217-11	CERAMIC CHIP	150PF	5.00%	50V
C043	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C044	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
C046	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C047	1-107-826-11	CERAMIC CHIP	0.1uF	10.00%	16V
C048	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
		< CONNECTOR >			
CN001	1-766-835-21	CONNECTOR, FFC/FPC (ZIF) 26P			
CN002	1-784-875-21	CONNECTOR, FFC (LIF (NON-ZIF)) 25P			
CN003	1-784-861-21	CONNECTOR, FFC (LIF (NON-ZIF)) 9P			
CN004	1-784-861-21	CONNECTOR, FFC (LIF (NON-ZIF)) 9P			
		< DIODE >			
D001	8-719-988-61	DIODE 1SS355TE-17			
D004	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC001	8-759-828-02	IC SP3728AC			
		< COIL >			
L001	1-412-031-11	INDUCTOR CHIP	47uH		
L002	1-412-031-11	INDUCTOR CHIP	47uH		
		< TRANSISTOR >			
Q001	8-729-903-46	TRANSISTOR	2SB1132-T100-QR		
Q002	8-729-903-46	TRANSISTOR	2SB1132-T100-QR		

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Ref. No.	Part No.	Description	Remarks
		< RESISTOR >	
R002	1-216-809-11	METAL CHIP 100 5%	1/16W
R003	1-216-809-11	METAL CHIP 100 5%	1/16W
R005	1-216-845-11	METAL CHIP 100K 5%	1/16W
R006	1-216-838-11	METAL CHIP 27K 5%	1/16W
R007	1-216-803-11	METAL CHIP 33 5%	1/16W
R008	1-216-803-11	METAL CHIP 33 5%	1/16W
R009	1-216-821-11	METAL CHIP 1K 5%	1/16W
R010	1-216-841-11	METAL CHIP 47K 5%	1/16W
R011	1-216-809-11	METAL CHIP 100 5%	1/16W
R020	1-216-803-11	METAL CHIP 33 5%	1/16W
R023	1-216-803-11	METAL CHIP 33 5%	1/16W
R025	1-216-841-11	METAL CHIP 47K 5%	1/16W
R029	1-216-809-11	METAL CHIP 100 5%	1/16W
R037	1-216-834-11	METAL CHIP 12K 5%	1/16W
R038	1-216-861-11	METAL CHIP 2.2M 5%	1/16W
R045	1-216-809-11	METAL CHIP 100 5%	1/16W

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	1-675-726-21	SENSOR BOARD **************	
		< CONNECTOR >	
CN708	1-506-481-11	PIN, CONNECTOR 2P	
		< DIODE >	
D704	8-719-055-84	DIODE GL528VS1	
		< RESISTOR >	
R711	1-249-415-11	CARBON 680 5%	1/4W F

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	1-675-727-21	SENSOR 2 BOARD ***************	
	4-964-461-02	HOLDER (SENSOR)	
		< TRANSISTOR >	
Q703	8-729-921-53	PHOTO TRANSISTOR PT483F1	

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	1-682-000-13	SW 1179 BOARD **************	
		< CONNECTOR >	
CN810	1-506-481-11	PIN, CONNECTOR 2P	
		< RESISTOR >	
R800	1-216-815-11	METAL CHIP 330 5%	1/16W
R801	1-216-817-11	METAL CHIP 470 5%	1/16W
R802	1-216-819-11	METAL CHIP 680 5%	1/16W
R803	1-216-821-11	METAL CHIP 1K 5%	1/16W
		< SWITCH >	
S801	1-786-220-11	SWITCH, KEY BOARD (stop)	
S802	1-786-220-11	SWITCH, KEY BOARD (pause)	
S803	1-786-220-11	SWITCH, KEY BOARD (play)	
S804	1-786-220-11	SWITCH, KEY BOARD (PRESET +/NEXT ▶▶|)	
S805	1-786-220-11	SWITCH, KEY BOARD (PRESET –/|◀◀ PREV)	

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Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS **************	
⚠5	1-696-169-11	CORD, POWER (EXCEPT US,CND,AUS,MX)	
⚠5	1-696-848-41	CORD, POWER (AUS)	
⚠5	1-783-531-72	CORD, POWER (US,CND)	
⚠5	1-824-090-11	POWER CORD (MX)	
51	A-4726-404-A	TUNER (A) MOUNTED PC BOARD (US, CND)	
51	A-4726-588-A	TUNER (A) MOUNTED PC BOARD (AUS)	
51	A-4726-905-A	TUNER (A) MOUNTED PC BOARD	(EXCEPT US,CND,AUS)
52	1-823-082-11	CABLE, FLEXIBLE FLAT (13 CORE)	
54	1-823-124-11	CABLE, FLEXIBLE FLAT (29 CORE)	
55	1-823-355-11	CABLE, FLEXIBLE FLAT (13 CORE)	
62	1-823-080-11	CABLE, FLEXIBLE FLAT (25 CORE)	
63	1-823-083-11	CABLE, FLEXIBLE FLAT (9 CORE)	
64	1-823-084-21	CABLE, FLEXIBLE FLAT (17 CORE)	
65	1-823-125-21	CABLE, FLEXIBLE FLAT (12 CORE)	
114	1-823-081-11	CABLE, FLEXIBLE FLAT (17 CORE)	
554	1-823-085-11	CABLE, FLEXIBLE FLAT (9 CORE)	
555	1-823-072-11	CABLE, FLEXIBLE FLAT 26P	
⚠558	8-820-144-06	OPTICAL PICK-UP KHM-240AAA	
⚠F901	1-533-453-11	FUSE, GLASS TUBE (DIA. 5) (5A/125V)	(US,CND,MX)
⚠F901	1-533-470-11	FUSE, GLASS TUBE (DIA. 5) (T3.15AL/250V)	(EXCEPT US,CND,MX)
M701	X-4950-341-1	MOTOR (CLAMP) ASSY (CLAMP)	
M702	1-763-790-11	MOTOR, DC (LOADING)	
S707	1-418-045-01	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	
⚠S901	1-786-210-11	SWITCH, POWER (POWER)	

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REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2002.05	New
1.1	2002.08	Part number correction of the power cord of US and Canadian (SPM-02063)
1.2	2002.10	Correction of D909 (SPM-02086)
1.3	2003.05	Addition of “CHECKING OF OPERATIONS WITH REMOTE COMMANDERS OF DIFFERENT MODELS” (SPM-03001) Addition of “TEST DISC LIST” and servo adjustment note to the TEST MODE (SPM-03008) Correction of the part number of the power cord for Australian model (SPM-03017) Change of optical pick-up (SPM-02121)
1.4	2003.07	Correction of “TEST DISC LIST” (SPM-03070)
1.5	2003.10	Correction of Schematic Diagram (Connection of D910 and R914, POWER Board) (SPM-03103)
1.6	2004.08	Addition of note of replacing the DVD board (SPM-04038)

SS-TS502/WS502/WT502

SERVICE MANUAL

Ver 1.0 2002. 04

US Model
Canadian Model
E Model
Australian Model

Photo : SS-WS502

Photo : SS-TS502

- SS-TS502/WS502/WT502 are speaker systems in DAV-C450.

- SS-WT502 is composed for following models.

COMPONENT MODEL NAME FOR THESE SYSTEMS

SS-WT502	
SS-TS502 (FRONT, CENTER, REAR SPEAKER SYSTEM)	SS-WS502 (SUBWOOFER SPEAKER SYSTEM)

SPECIFICATIONS

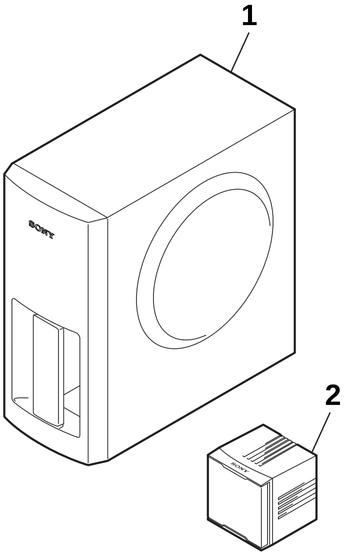
SS-TS502

Speaker system	Bass reflex
Speaker unit	80 mm ($3\frac{1}{4}$ inches) dia. cone type
Rated impedance	
North American and Mexican models:	
	3 ohms
Other models:	4 ohms
Dimensions (approx.)	111 × 116 × 111 mm ($4\frac{3}{8} \times 4\frac{5}{8} \times 4\frac{3}{8}$ inches) (w/h/d)
Mass (approx.)	0.62 kg (1 lb 6 oz)

SS-WS502

Speaker system	Bass reflex
Speaker unit	200 mm ($7\frac{7}{8}$ inches) dia. cone type
Rated impedance	3 ohms
Dimensions (approx.)	172.5 × 355 × 355 mm ($6\frac{7}{8} \times 14 \times 14$ inches) (w/h/d)
Mass (approx.)	5.3 kg (11 lb 11 oz)

EXPLODED VIEW AND PARTS LIST



Ref. No.	Part No.	Description	Remarks
1	A-4330-797-A	OVERALL ASSY (SS-WS502)	
2	A-4680-850-A	SATELLITE ASSY (SS-TS502)	

SPEAKER SYSTEM

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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2002.04	New